VOL. CCXXXVI, No. 3072
TWO SHILLINGS AND SIXPENCE

Fit "TripleX"- and be safe
Regd

THE SPHERE
With which is incorporated "BLACK & WHITE"
FEBRUARY 14, 1959

The SPHERE

with which is incorporated The GRAPHIC

— THE WORLD'S NEWS IN PICTURES

BRITISH SEAGULL

"The best Outboard Motor for the World"

THE BRITISH SEAGULL CO. LTD., FLEETS BRIDGE, POOLE, DORSET. Telephone: POOLE 1651.

Apollinaris is the natural mixer with Scotch...

ask for a Scotch and POLLY

TIO PEPE

Spain's Dry Sherry

GONZALEZ BYASS

At Fortnum & Mason you can have your cake and eat it, too.

F M

"King George IV"

OLD SCOTCH WHISKY

THE DISTILLERS AGENCY LTD. EDINBURGH · SCOTLAND

Duff Gordon Sherry EL CÍD PRODUCE OF SPAIN Light Amontillado

PARIPAN LTD.

BRITISH MADE

PARIPAN Dryfast ENAMEL * PAREMUL Emulsion PAINT * PARIMAT Steamproof FINISH

EGHAM · SURREY

FOR MICRO, CORNEAL OR CONTACT LENSES

consult

David Blackstone Ltd.

CONTACT LENS PRACTITIONERS

For appointment or details and address of nearest branch, call, write or phone

115 OXFORD ST., W.1. Tel. GER 2531 or 197 REGENT ST., W.1. Tel REG 6993

Branches in most main centres

ALL CLASSES OF INSURANCE TRANSACTED

UNITED BRITISH INSURANCE COMPANY Ltd.

BYRON HOUSE, 7/9, ST. JAMES'S STREET, LONDON, S.W.1

PUBLISHING OFFICE: INGRAM HOUSE, 195-198, STRAND, LONDON, W.C.2

Registered as a Newspaper for Transmission in the United Kingdom

FOR POSTAGE RATES SEE FRONTISPIECE

PRICE 2/6

"South Africa gives you the holiday of a lifetime!"...

SAYS THE BUSINESS EXECUTIVE

It's grand to make a break and to slip away from the discomforts of the European climate, to bask luxuriously in the glorious warmth of South African sunshine.

Naturally, there's more than sunshine to make this a wonderful holiday country. If you're the energetic type you'll revel in the excitement of the game reserves and enjoy all sorts of open air sports in ideal conditions. If more sophisticated pleasures have a greater appeal, there are heaps of fashionable coast resorts with a gay social round as well as the attraction of modern cities like Johannesburg.

You can't possibly be dull in South Africa. A friendly welcome greets you everywhere and life in the sunshine is one long delight.

At the coast: blue seas and sunshine

In the mountains: relaxation in luxury

In the cities: Sophisticated night life

South Africa

LAND OF SUNNY CONTRASTS

SATOUR

This office is at your service for free, friendly and helpful advice. *For detailed information on transport, accommodation and costs consult your Travel Agent or South African Railways Travel Bureau, South Africa House, Trafalgar Square, London W.C.2.*

SOUTH AFRICAN TOURIST CORPORATION

70, PICCADILLY, LONDON, W.1.

4TH FLOOR, 610 FIFTH AVENUE, NEW YORK 20

Relax in luxury

all the way to

Europe's holiday gateways...

FLY BY SUPER-CONSTELLATION TO

GENEVA

and

ROME

PIA

PAKISTAN INTERNATIONAL AIRLINES

Twice weekly service leaving London Airport every Sunday and Wednesday at 1700 hrs. for Geneva, Rome, Damascus, Baghdad, Teheran and Karachi. See your travel agent today and say 'PIA'... or write to Pakistan International Airlines, 45 Piccadilly, London W1. Phone REGent 5544.

3/4 FOR 20

1/8 FOR 10

There's something special about Bristol—the Multicel tip that gives you all the *full* cool flavour of fine tobacco.

Take a tip - take a BRISTOL

BRISTOL

TIPPED CIGARETTES

BC27D

By Appointment to
Her Majesty The Queen
Manufacturers of Grenfell Cloth
Haythornthwaite & Sons Ltd

Rainwear by
GRENFELL
A name with Great Associations

HAYTHORNTHWAITE & SONS LTD LODGE MILL BURNLEY

DRY FLY SHERRY

A gracious welcome to your guests

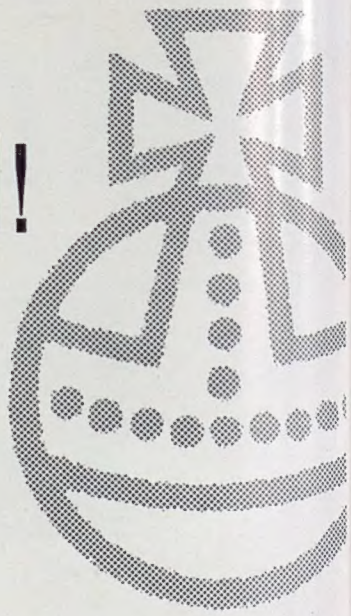
18/- bottle · 9/6 half-bottle

Also Magnums 36/-

Be on guard!

you want **genuine**

Harris Tweed



HARRIS TWEED

So insist on seeing this trade mark on this label

ONLY genuine Harris Tweed can bear the legally protected Trade Mark stamped on the cloth, and reproduced on the label in the garment. Insist on seeing it. Otherwise you may be buying imitation Harris Tweed of doubtful origin and quality. The Orb Trade Mark is your guarantee that the tweed to which it is applied is made from virgin Scottish wool, spun, dyed, hand-woven and finished in the Outer Hebrides.

* Do not be put off
by imitations alleged to be "just as good".

LOOK FOR THE MARK ON THE CLOTH AND ON THE LABEL IN THE GARMENT.

It protects a vital cottage industry and is

YOUR GUARANTEE.

Issued by THE HARRIS TWEED ASSOCIATION LTD

This page is missing from the print copy used for digitization.
A replacement will be provided as soon as it becomes available.

This page is missing from the print copy used for digitization.
A replacement will be provided as soon as it becomes available.

Volume CCXXXVI No. 3072

The SPHERE, London, February 14, 1959

The SPHERE

with which is incorporated THE GRAPHIC

© 1959, Illustrated Newspapers Ltd. *All Rights Reserved.*

THE QUEEN MOTHER IN EAST AFRICA—ACKNOWLEDGING THE TUMULTUOUS WELCOME OF THOUSANDS OF SCHOOLCHILDREN IN KENYA: Her Majesty is standing in a Land-Rover during her tour of Mitchell Park, in Nairobi, where 20,000 schoolchildren had gathered for a mass welcome. The children came from schools within a radius of 120 miles of the city. The Queen Mother had arrived in Nairobi a few days earlier, at the start of her three-week visit to Kenya and Uganda.

Last week, when the Duke of Edinburgh was starting the second stage of his three-month World Tour, the Queen Mother left London by air for Nairobi to begin her three-week visit to East Africa. Her Majesty travelled in a B.O.A.C. Britannia and was seen off at London Airport by the Queen and Princess Margaret. In Nairobi thousands of people from all parts of Kenya gathered to welcome the Royal visitor. At the airport the official welcoming ceremony was led by the Governor, Sir Evelyn Baring, and other officials, and the guard of honour was provided by the 11th Kenya Battalion, The King's African Rifles. Later, during the Royal procession to Government House Her Majesty called at the Parliament Buildings to meet Ministers and members of the Legislative Council. Despite the fact that the African members of the Council had called for a boycott of the Royal visit in protest against British policy in connection with the new Constitution, several Africans attended the ceremony. Another call was also made at the City Hall, which was enlarged last year. Last Saturday, after the Queen Mother had received another great welcome from the schoolchildren at Mitchell Park, she attended a garden party at Nairobi's Government House. (Further pictures of the Royal visits to Africa, India and Pakistan are on pages 232-233.)

Postage—Inland, 4d.; Canada, 1½d.; Elsewhere Abroad, 5½d.

A CHANGE IN THE RULES AT OXFORD: Bicycles—seen here stacked against the wall of the Radcliffe Camera—have recently been the subject of a new by-law in the University city. The regulation is aimed at stopping the custom, followed by generations of Oxford men, of taking the first bicycle coming to hand. Now, machines cannot be removed unless there is " reasonable belief " of owner's permission.

AN INNOVATION AT BUCKINGHAM PALACE: The Royal Standard is now flo Queen's residence. A similar arrangement has been made at Win when Her Majesty is at the Palace of Holyroodhouse. This The Standard will not, however, be floodlit at either Sandring

A London Newslette

195-198, STRAND, W.C.2

Maltese Cross—Mr. Mintoff last week ordered a day of mourning in Malta to mark the island's resentment at the revocation of its self-governing constitution—a futile gesture which was only too successful with the Labour force, which enjoyed a holiday and is likely to enjoy many more, if Mr. Mintoff goes too far with his policy of toughness. Certainly the *temporary* effect of the revocation is quite enough to cause resentment among a people very politically-minded, shrewd and clever, and only recently judged well-fitted to send representatives to Westminster. For the effect is—again temporarily—to relegate the Maltese to the status of the least developed colonial territory. What has happened all over the world has been a massive demand among small " Colonial " peoples, without any attempt to count the cost, for complete independence, and those who have stimulated such demands clearly prove themselves to be politically and economically under-developed, if demagogically shrewd. For, as unemployment increases, so will Mr. Mintoff's following increase and his popularity grow. He has all along been an awkward and prickly negotiator. It was Mr. Bevan's phrase; even as he condemned the Government's blunders, he signalised as a blunder Mr. Mintoff's swift and obstinate rejection of integration in favour of immediate independence. But independence is not just a national title or label. It means, and must always mean, the ability to stand on one's own legs, to pay one's way without dependence on other people, to produce and offer services to enable one to benefit from the world's exchange of goods and services; and those things Malta is not yet in measurable distance of achieving, her economy having long been built largely on British installations in the island and their servicing by native labour. Her population has trebled in 150 years. She must import three-quarters of her food and manufactured goods. The bulk of her 300,000 live near and on the dockyards, and her revenue is derived from British and tourist spending and our Exchequer subsidies. The British Government is pledged to restore the Maltese Constitution at the earliest moment, and was clearly reluctant to take the step it did. But the months have passed and Mr. Mintoff has grown more and more obstinate and reckless in his demands, and nothing has been done. Mr. Mintoff has not behind him all Maltese... National pride among an intelligent people cannot be divorced from stark economic facts, and many of his countrymen must have wished in their hearts that Mr. Mintoff would put his pride in his pocket and help, rather than hinder, the restoration of the island's economy.

Southend—The by-election at Southend produced a new " low." Mr. Channon, inheriting his father's seat, knocked out two recent " babies " in the House, and soon they will have to supply an official baby-sitter there. The poll, too, was disgracefully low, and most of the disgrace clearly fell on the easy Tory voters of a " safe " seat. There was nothing here to comfort the Conservatives, whose votes fell by 13,000 since 1955, and still less the Socialists, who were knocked into third place by an excellent Liberal lady-candidate who knew and was known to the constituency. This by-election must revive the waning hopes of that Liberal revival and make both the larger parties take more serious note of Liberal intervention at the General Election. For my part, I do not favour inherited seats. Sir Henry Channon was a popular host and friend of Tory Ministers and, as a member, he well-suited Southend. But even to-day all efficient M.P.s are not assured of knighthoods, if they want them, and Sir Henry's surprised a number of people. Naturally the weather was blamed for the astonishing apathy of voters, but, after all, voting is a civic duty and a duty imposed at least 1,000 times less often than the daily and far longer journey to the office or factory which men and women cheerfully make daily in the vilest weather conditions. Young Mr. Channon proved quite a good candidate and deserves his hour of fame, and no doubt, with experience, will make his way as the other bright boys are doing. Indeed, it is excellent to reduce the average age of M.P.s, which has recently decreased apace by the election of stripling candidates and by the resignations of an unusually large batch of " aged and decayed," or disappointed and frustrated, sitting Members. But apathy, even in safe-seat by-elections, is a sign which Lord Hailsham should read as a red light. Never is it wise to underrate your opponents.

Rainier's "Patience Exhausted"—Monaco is but a small State, but, nevertheless, it appears to exemplify in microcosm an absolutism which has, and has had, a melancholy history in larger countries. For that very reason, if Prince Rainier used the words " My patience is exhausted," as reported, they were unhappily chosen. The National Council which he has dissolved was only elected last year and it has not pleased the Prince. Its majority has been all along critical of Palace domination, and, indeed, it was established as a result of earlier criticism of the ruler's absolutism. So now, the Constitution is dissolved, as a result of continual threats to the Prince's authority, his crown and dignity. There will instead be a " group " nominated by him with M. Portarrier, head of the legal services, as chairman of this State Council, and to disguise the absolutism of the Palace, the Prince promises all kinds of reforms and votes for women. The women, I should judge, will be on the Prince's side, but the late National Council members are not likely to co-operate warmly. To them, the Prince's surprise decision to remove their bauble is labelled a *coup d'état*, and they think the Prince was more concerned with the dynasty than with the " nation." A storm in a tea-cup ? But even a doll's tea-cup has relations with the larger table or tray it is set on, and still as of old uneasy lies the he that wears too powerful a crown.

" Pour Encourager "—No doubt, th Minister of Transport is anxious to avoid discouragin local authorities and contractors from pressing on with th Government's ambitious programme of modern roads fo Britain, and perhaps he was right to refuse an independe inquiry, but to declare that no blame attaches to anybo concerned (except, of course, the weather-clerk) was least premature. For experts on all sides are continual assuring us that Britain's first motorway, the Presto by-pass, was inadequately drained and suffered from th Ministry's pruning of estimated costs of materials. As fo the weather, if our new roads never receive worse attentio from the wintry weather than in 1958, they will be luck Those who build them should certainly plan them to stan up to severer conditions. Germany, for example, expect receives and overcomes far worse conditions on i autobahnen. Loyalty to one's " staff " is a great thing but loyalty has more faces than one. The " shareholders have a financial interest and stand to lose if the staff turn out goods that do not work. But the weather in Englan since the Roman landings has always been the whipping boy of failure, in spite of Charles II's approval of Engli weather as the best he found anywhere on his travel the farmers, market gardeners, unsuccessful Parliamenta candidates, theatrical producers, gamekeepers and coun less others, all blame failure on the weather. Let us hop that next time a Premier gives an ebullient O.K. to anoth little stretch of speed track, he will have assured himse that it can stand up to 10 degs. of frost.

Power of the Press—The Army was alway reputed to be terrified of M.P.s. Generals and colone trembled whenever an M.P. was recognised in the training area. To-day it seems they have switched th " needle " to the columnists of the sensational Press. T gods of youth to-day are male crooners and rock-an rollers and other depressing entertainers, and when o of these young gods came to begin his military serv in Southern Command, the headquarters staff uneas succumbed to a publicity campaign by the sensational sna shooters, and gave full facilities for this young god to filmed and interviewed as he stooped from godhood take his turn on the square " like any ordinary man The people demanded it, the people must have their brea and circuses. This modern religion has, at any rate, some thing in common with a religion formerly embraced the youth of this country. I am rather surprised that th sensational Press does not assert its rights to publicise lesser gods when they, too, stoop to serving with ordina

y a ring of nine lamps from dusk to midnight during the hen the Queen is there. The Standard is already floodlit rrangement has been made at the Queen's own suggestion. r Balmoral, which are Her Majesty's private residences.

ANOTHER FAMOUS LONDON LANDMARK TO DISAPPEAR? The view is of the exterior of the Metropolitan, the famous theatre in Edgware Road, where many of to-day's well-known entertainers first appeared early on in their careers. It is possible that the "Met" may be affected by a London County Council scheme to widen the Edgware Road and provide a fly-over from Marylebone Road to Harrow Road. The theatre was opened ninety-five years ago.

men. I should have thought: "Viscount joins up" or "Duke's son in the ranks" would make popular captions but, of course, youth will be served, and in the eyes of modern youth, male or female, a duke's son is to-day very small beer beside a crooner. Once more, the responsible Minister supplied in Parliament a very remarkable example of loyalty to his "staff." But how right, after all, are our modern major-generals to go in fear of M.P.s, who nose out and ventilate these little weaknesses.

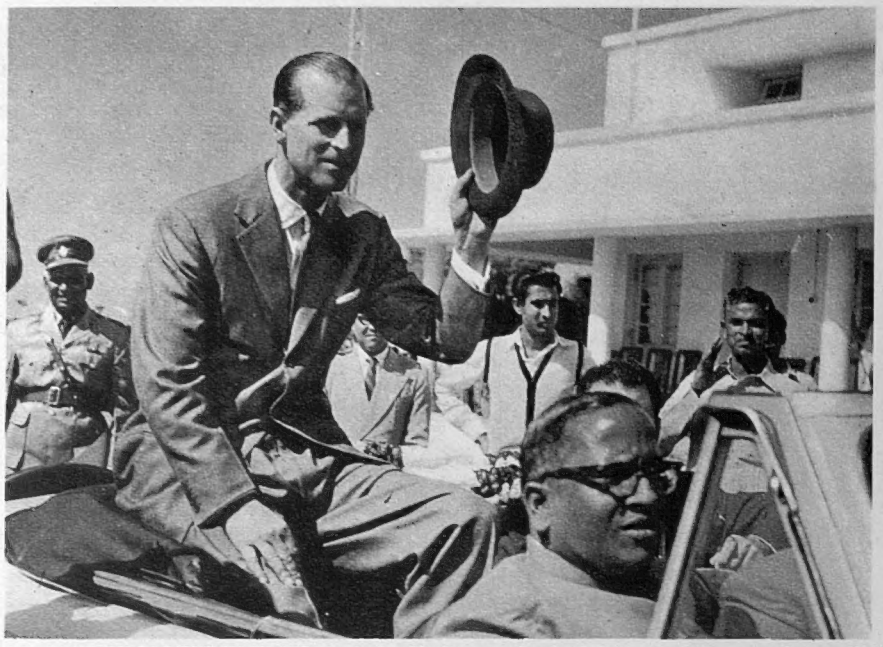
Blood Sports—I should dislike to be involved in any "anti" controversy. My observations on the policy of the National Society for the Abolition of Cruel Sports, in their approach to the Queen, brought me a temperate and polite letter from the Society's Press Secretary. The Society has an influential list of vice-presidents (poets, authors, philosophers and what-not) and its broad object is to bring *wild* animals under the protection of the law, an object which I should be the last man to reject. But there is wide room for differences of opinion about how the main object can be brought about for the benefit of wild animals and the means by which it should be pressed; and to-day I will do no more than examine the two arguments contained in the Press Secretary's letter to me: Last year, he says, the *News Chronicle* conducted a Gallup poll, and well over 50 per cent. of the poll was against hunting. He goes on: "The Queen is the Head of the State. Consequently, in that role, it can never be a private matter what she does in the public eye. It would be certainly unfortunate if she or Prince Philip countenanced things that the majority of her people disliked." Going regularly to church on Sunday, for instance? I do not gather from my observations that a Gallup poll (100 per cent. "honest to God"), if carried out, would reveal that a majority of our nation to-day goes or likes going to church every Sunday.

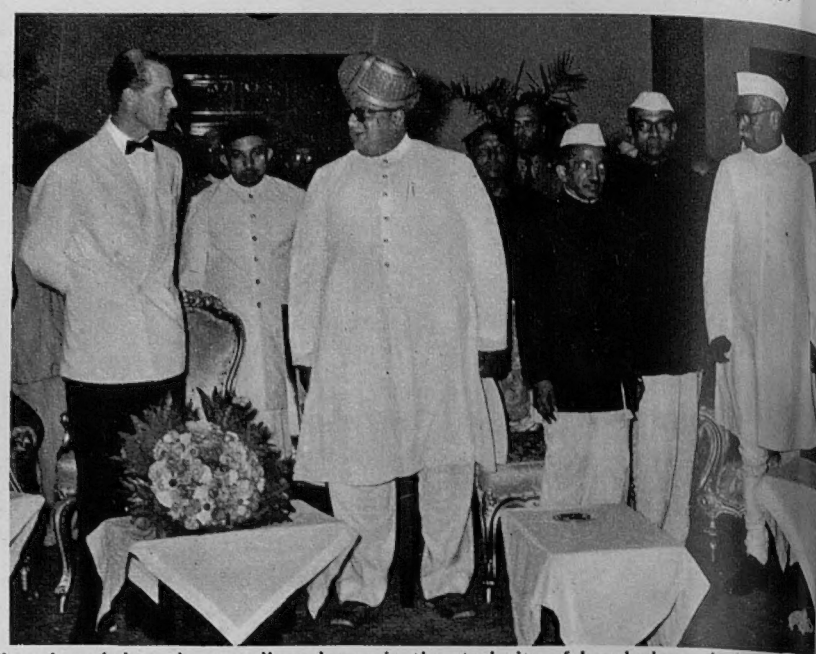
"Lolita"—Mr. Nigel Nicolson is always in the news. His publishing firm, Weidenfeld and Nicolson, intend to publish *Lolita*, the best *pre*-advertised best-seller since Montgomery's Memoirs. Before spending money on production, Mr. Nicolson intends to instigate a test case on the question of its obscenity as soon as the new Bill becomes law. This won't be until summer, and so the enormous waiting lists at the libraries, which have been lashed to excitement by pre-publicity concerning its filthiness or its literary genius (according to which side you take in the controversy), must endure their frustration till late summer. Of course, the "lucky" few have already read it. One or two libraries have had to send their copies to be rebound and copies flow in under the counter or by post apparently unpenalised. Most of the partisans, pro and con, probably have not read the book. They are content to go to war, as most of us do, without quite knowing why. Certainly the theme sounds unelevating and is said to be *realistically* detailed—which is quite enough to justify the other side accepting the "sheer genius and beauty" of its style. So Mr. Nicolson, who clearly loves to trail his coat-tails, must bide his time a little longer while both his major wars stew up. He will know where he stands with Bournemouth some time before he knows where he stands with *Lolita*. And if Bournemouth East goes against him, he can fall back on publishing best-sellers (as, indeed, the Premier admits he may one day do), and no doubt best-sellers pay better than politics. But certainly publicity usually pays whatever the profession a man adopts. The author who signs his name to every symposium protest, never shirks a lecture to blue-stockings and has tried friends among the social columnists, is hailed as a master of the pen. The mute Miltons are inglorious.

ELEVEN PRINCES OF DENMARK: Ten actors and one actress, who have played Hamlet, are seen at the dinner of the British Theatre Museum Association at the opening of the Hamlet Exhibition at the Saville Theatre. From left: Mr. Ernest Milton, Mr. Robert Harris, Mr. Terence O'Brien, Mr. Colin Keith-Johnston, Mr. John Laurie, Miss Esmé Beringer, Mr. Michael Redgrave, Mr. Micheal MacLiammoir, Mr. Robert Eddison, Mr. Alec Clunes and Mr. Baliol Holloway.

Ashes—When all that has been said and written by expert armchair critics of Test cricket has been edited and pruned to relevance, it would (I suppose) boil down to a single sentence: the English side have been soundly beaten by a much better side in all departments of the game, and Australia have deservedly regained those Ashes. The English side, well led, playing a keen, generous and sporting game, proved no match for their hosts. This was at first a surprise, following the great build-up. But the eminence of their minority of star players is enhanced, not diminished. Perhaps their vulnerability to casualties in the field produced another surprise. When events of minor global importance are given the publicity of earth-shaking events, a certain bathos usually results. People grow a little ashamed of all the fuss and blather. It is good for cricket (which, Heaven knows, needs a boost of interest) that results should not be one-sided, and May is young, and he and his team, rebuilt, will come again, and he will doubtless earn his knighthood before he retires. Meanwhile, the "Ashes" of Test cricket signify to me the sombre fact that on the average in these games 200 runs in a full day's cricket are all that the fans may expect, a painful 40 runs per hour, with the fall of perhaps three wickets. Test cricket to-day is clearly a dangerous occupation, for limbs and reputations; and as deadly dull as dangerous. The first to suffer from over-publicity and elevation to godhead are the players themselves, above all the opening batsmen who walk like mesmerised rabbits into the world arena: and those who love cricket and, as a means of livelihood, absurdly exalt its importance are quite certainly killing the thing they love, and with it their own livelihood and reputations as critics and men of sense.

THE OLD STAGER

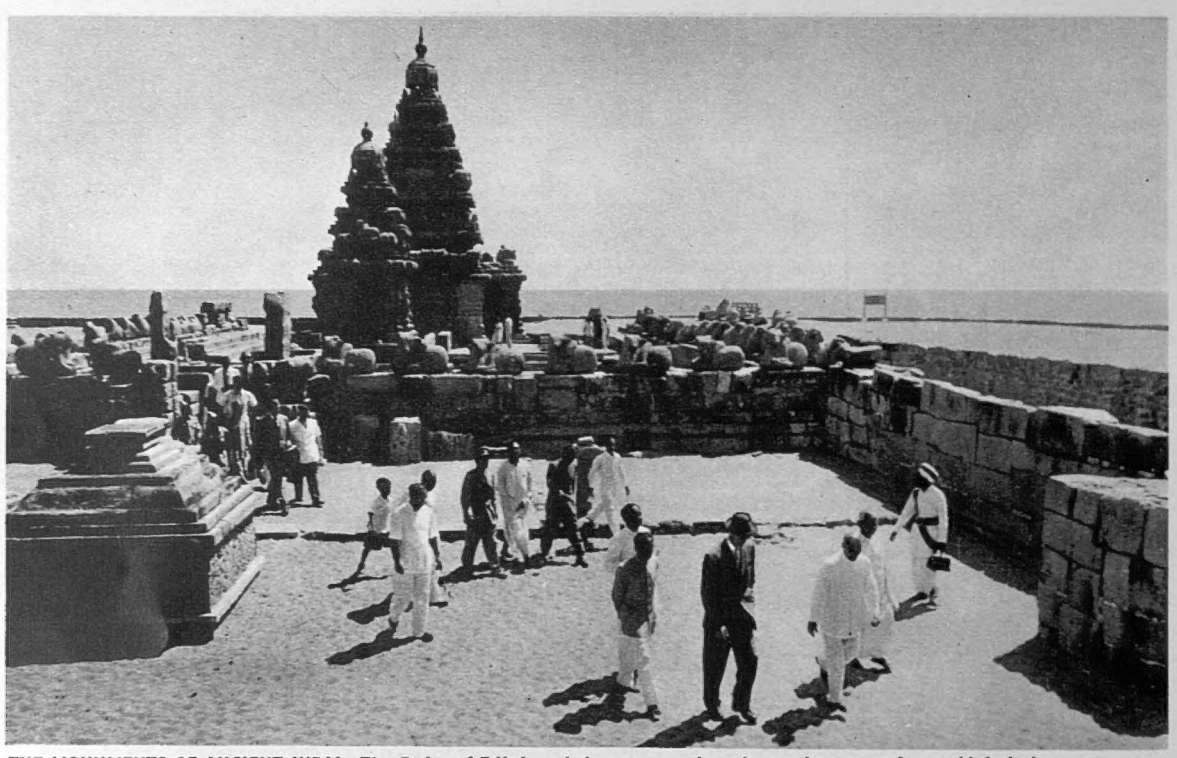




THE DUKE OF EDINBURGH IN INDIA: *Left*—Sitting on the folded hood of the car, Prince Philip acknowledges the crowd's welcome in the steel city of Jamshedpur, during his stay in and around Calcutta. Earlier, he had visited Durgapur, where a steel plant is now under construction by thirteen British companies for the Indian Government. Right—In Bangalore the Duke attends a dinner given by the Governor of Mysore (centre). On the right is the President of India. Prince Philip completed his Indian visit at Calcutta

ROYAL JOURNEYS

The Duke of Edinburgh in India and Pakistan; the Queen Mother in Kenya, and the Duchess of Ke on the Eve of Her American Visit



THE MONUMENTS OF ANCIENT INDIA: The Duke of Edinburgh is seen touring the ancient temples at Mahabalupuram, near Madras. The monuments date from the seventh century. Earlier the Duke visited Aurangabad, in Bombay State, to see the Ellora Caves and the Ajanta frescoes, which are believed to be 2,000 years old. He then travelled to Bombay.

ROYAL VISITORS TO CENTRAL AND SOUTH AMERICA: The re picture of the Duchess of Kent and Princess Alexan was taken in Kensington Palace. The Duchess and daughter were due to leave London by air last Wednes for their five-week tour of Mexico, Peru, Chile and Br Later this year Princess Alexandra is to visit Queens for the Australian State's centenary celebrati

IN PAKISTAN: *Left*—After the welcoming ceremonies at the airport at Karachi, the Duke of Edinburgh drives with the President, General Ayub, to the Presidential Palace. *Right* The Prince meets the three chiefs of Pakistan's armed forces. He is shaking hands with General Mohammad Musa, C.-in-C. of the Army. Before flying to Karachi the Duke of Edinburgh paid a short visit to East Pakistan. After spending two weeks in Pakistan he will go to Burma, where he will embark at Rangoon in the Royal Yacht *Britannia* on February

THE QUEEN MOTHER'S VISIT TO EAST AFRICA: *Above left*—She is welcomed by Sir Evelyn Baring, the Governor of Kenya, on arrival by air at Nairobi, and (*on right*) meets an African elected member of the Kenya Legislature. *On left*—Her Majesty holds a bouquet during her visit to Nairobi's Mitchell Park for the children's rally.

AT THE CITY HALL AND MITCHELL PARK: *Left*—The Queen Mother signs the visitors' book during her call at the City Hall while driving from the airport at Nairobi to Government House. On the right is the Mayor of Nairobi, Mrs. Marjorie Needham-Clark. *Right*—Her Majesty meets educational leaders during her visit to the children's rally. This is the Queen Mother's first visit to Kenya and Uganda for more than thirty years. Among her engagements during the tour is a visit to Kampala, where she will lunch with the Kabaka.

CRUFT'S SHOW

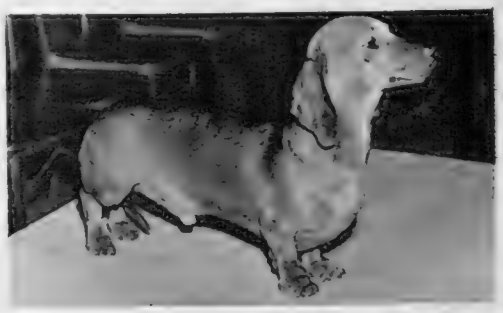
A Welsh Terrier is Champion This Year

The supreme champion at Cruft's last week-end, the sixty-third of the shows, was a Welsh terrier, Champion Sandstorm Saracen. He was one of the three dogs selected from the total of 3,173 shown on the first day to compete for the championship. The Reserve was a Labrador retriever, Champion Ruler of Blaircourt, bred and entered by Mr. and Mrs. G. Cairns. Although there were 350 fewer dogs than last year, the total of class entries was a record 13,211. The Kennel Club proved successful in their attempt to persuade breeders to enter fewer dogs in more classes by altering the entry fees. The trend in post-war years towards the smaller breeds was again evident at Cruft's this year. Miniature poodles still appear to be more than twice as popular as any other breed, followed by corgis, Alsatians, boxers and cocker spaniels. Welsh terriers are not usually seen as show winners. The two-year-old champion dog had a distinctive black and tan wiry coat. Many judges think that the breed's coat is better than that of either an Airedale or a wire-haired fox terrier. They are sturdily built and weigh about 20 lb.

THE SUPREME CHAMPION: Champion Sandstorm Saracen is a two-year-old Welsh terrier, owned by Mrs. M. M. Thomas and Mrs. D. M. Leach. Left is the Earl of Northesk, Chairman of the Committee.

AT THE DOG SHOW: At Cruft's Show, at Olympia, in London, judging is in progress in one of the rings. The sawdust is marked like snow with footprints. A total of 3,173 dogs were shown on the first day of the show last week-end. The total of class entries was a record at 13,211. The champion, a Welsh terrier, also won the Birmingham National Championship Show. Although a famous dog, he is also a family pet.

CHAMPION OF ITS CLASS: The best of the Shih Tzus is Mrs. A. O. Grindey's Choo-Choo of Cathay. The Taishan strain dates from 1928 and the name of the breed means lion in Chinese.



On left—

BEST MINIATURE SMOOTH-HAIRED DACHSHUND: The winner is Mrs. E. A. Winder's Minivale President. The miniature breed differs from the standard smooth-haired breed in its weight, which must be under 11 lb.

THREE BASSETT HOUNDS: Brockhampton Chimer, Brockhampton Soloman and Fochno Trooper belong to Mr. G. W. Dakin. These handsome small hounds have distinctive deep-toned voices.

BEST IN BREED: This Afghan hound, Krishna of Barbourne, is owned by Mrs. M. F. Masters. The ancient breed is prized in Afghanistan for its sporting qualities.

THE EVER-POPULAR POODLE: Beechover Tartar is owned by Mrs. P. A. Paull. More small dogs than large were entered at the show.

THE NEWS IN PICTURES

CABINET MAKING IN ITALY: Signor Segni leaves the Quirinal Palace, in Rome, after accepting President Gronchi's invitation to try and form a new Government. The Prime Minister designate was Deputy Premier in the Fanfani Cabinet which resigned at the end of last month. Signor Segni began discussions early this week to form a Cabinet.

MOVES TOWARDS A SETTLEMENT ON CYPRUS: From the left are: Mr. Karamanlis, Greek Prime Minister; Mr. Averoff, Greek Foreign Minister; Mr. Mendères, Turkish Prime Minister, and Mr. Zorlu, Turkish Foreign Minister. They were meeting in Zürich for the first session of the Turkish-Greek Conference on Cyprus. Discussions were held in strict privacy, but on Sunday both Mr. Averoff and Mr. Zorlu agreed they were "working hard and well," although it was too early "to speak of real optimism." Reports indicated that the Ministers were seeking to find some mutually satisfactory system of independence for Cyprus and means of guaranteeing it. Special interest was attached to the fact that among those who arrived in Zürich for later sessions was the Turkish Ambassador in Belgrade. It was believed that if a Cyprus solution could be reached, the Balkan Pact (Turkey, Greece and Yugoslavia) might be revived to withstand Russian pressure in the Balkans.

THE DEATH OF DR. MALAN: The former Prime Minister of South Africa, who died last week at the age of eighty-four, is seen with his wife on arrival at Southampton in 1953 to attend the Coronation of Queen Elizabeth. Daniel Malan, a Doctor of Divinity and *predikant* of the Dutch Reformed Church, was Premier of the Union from 1948, until his retirement through ill health in 1954. His Government was the first to put the full *apartheid* policy into practice.

On left—

MARSHAL TITO IN CEYLON: The President of Yugoslavia holds up a young member of the troupe of famous dancers in Kandy who had put on a special performance for him and his wife, Madame Broz (on left). Last week in his Afro-Asian tour the Marshal had moved on to Ethiopia, It was announced that he would visit Athens on his way home to Belgrade next month. This news gave further credence to the reports of a Balkan Pact revival.

SCHOOL INTEGRATION IN VIRGINIA: A Negro sits with other pupils in a classroom in Norview High School, in Norfolk. The picture was taken on the first day of integration of white and coloured students in schools in Virginia. *On left*—Boys and girls, including Negroes, leave the Junior High School at Arlington watched by a policeman. Other policemen stand in the background. They had been posted to the school in case of trouble, but the day passed off quietly and without any incidents in both Arlington and Norfolk. The end of the segregation in the schools had been approved with reluctance by the Governor of Virginia, Mr. Lindsay Almond, in view of the orders by the United States Supreme Court and the Virginia Supreme Court that such educational methods were illegal and that Negro and white pupils must be integrated in future.

THE NEWS IN PICTURES

AMERICA HONOURS SIR VIVIAN FUCHS: The Leader of the British Commonwealth Antarctic Expedition which made the crossing of the South Pole a year ago stands with President Eisenhower in the White House, in Washington. Sir Vivian is holding the Hubbard Medal which Mr. Eisenhower had presented to him. The award is the highest distinction which can be bestowed by the National Geographical Society and was founded in 1906 to honour Admiral Peary for his Arctic exploration to the North Pole. It had been granted only seventeen times before Sir Vivian received it this month.

On right—

AN EVEREST CONQUEROR IN ITALY: Sherpa Tensing, who with Sir Edmund Hillary reached the peak of Everest in 1953, stands with three puppies at Monte Bondone, near Trento, in the Italian Dolomites. He had brought the young dogs from India as gifts for three Italian friends, one of whom is Achille Compagnoni, the distinguished Italian Himalayan mountaineer. Tensing, who is the chief ski instructor at the Mountaineering School at Darjeeling, had arrived in Italy to perfect his own technique under the tuition of European exponents of the sport.

AMERICAN AIR DISASTER: Mangled wreckage of the Electra turboprop airliner belonging to American Airlines is pulled out of East River, New York. The airliner was attempting to make an instrument landing in fog and rain at La Guardia airport. It missed the approach and plunged into East River. Only eight of the seventy-three people on board, five passengers and three members of the crew, survived. After the Electra had broken into pieces, it was believed that many victims were drowned because they were unable to get clear of the wreckage. Those rescued were saved by the prompt action of a tugboat captain. Hearing a " terrific crash " he cut loose two barges which his craft was towing and hastened to the source of the sound. He said the aircraft was " caving in on all sides " and that there were " people and bodies all over."

A BRITON BECOMES WORLD CHAMPION ON THE CRESTA RUN: Flight-Lieutenant C. N. C. Mitchell, of the Royal Air Force, takes a turning on the famous run in Switzerland in the course of winning the World Championship and Cartier Cup. His total time for six runs was 305·6 seconds. This was one-tenth of a second better than the runners-up, Kuederli (Switzerland) and Bibbia (Italy).

AN ARMED RAID ON THE KANDAHAR BARRACKS: At the barracks of the Hussars at Tidworth, in Wiltshire, the armoury is on the right. Three men raided the armoury of the camp near Salisbury and stole eleven revolvers, eight Sten guns and seven bayonets. They overpowered the storeman. Later two men were remanded in custody at Andover, charged with robbery at Tidworth, armed with an offensive weapon. Across the Dorset-Wiltshire border at Blandford, members of the Irish Republican Army made a large-scale raid on an Army camp last year, but were foiled. A board of inquiry into the raid at the Kandahar barracks opened at Tidworth, presided over by Lieut.-Colonel D. H. Davies, in command of the Queen's Own Hussars.

HALF A SHIP ON HER WAY TO ROTTERDAM: The stern of the Swiss cargo vessel *Nyon* is towed through the North Sea to Rotterdam, where she is to be fitted with a new bows. The *Nyon* went aground at St. Abbs Head, in Berwickshire, and was badly damaged in the pounding of heavy seas. The wrecked bows were detached by a R.N. diver using explosives and the stern was towed to Tyneside.

THE NEWS IN PICTURES

AN AGREEMENT SIGNED BY BRITAIN AND EURATOM: Mr. Selwyn Lloyd (left) and Professor E. Medi, of Italy, one of the members of the Commission of the European Atomic Energy Community, sign the agreement during the ceremony at the Foreign Office in London. The ten-year comprehensive pact is intended to provide the necessary framework for practical co-operation on peaceful uses of atomic energy in Europe.

MEXICO BREAKS OFF DIPLOMATIC RELATIONS WITH GUATEMALA : In Mexico City, President Adolfo Lopez Mateos raises his arms to acknowledge a crowd gathered outside the Presidential Palace. He is seen on the balcony with members of his Cabinet. A vast crowd demonstrated in favour of President Mateos's foreign policy. Mexico broke off diplomatic relations with Guatemala after a dispute over an incident last December. Guatemalan Air Force aircraft were alleged to have strafed Mexican fishing-boats. Guatemala claimed the Mexicans were fishing in her territorial waters, and that subsequently Mexican troops had been massed on her borders. Although the demonstration in Mexico City was said to be spontaneous, it bore every appearance of having been carefully organised. Units of the army were present and military aircraft flew overhead several times.

A FILM ABOUT THE STOCK EXCHANGE: The picture is taken from the short film in colour called *My Word is My Bond*, being shown to the public in the Stock Exchange Cinema in London. From left to right are William Squire and Jacqueline Thompson as Mr. and Mrs. West, a young couple making their first investments, and Robin Bailey (who is now playing Professor Higgins in *My Fair Lady* in Melbourne, Australia), as their broker. The film deals with the history, organisation and functions of the London Stock Exchange. Schools, technical colleges and industrial organisations have been reported to be eager to see it. One of the sequences depicts a scene in Jonathan's Coffee House, where Exchange business originated in the eighteenth century. The commentary is spoken by Richard Dimbleby.

On left—

DR. CASTRO'S SISTER: In a classroom of her school in Switzerland, Miss Augustina Castro (right) looks at pictures of her brother taken during his triumphant march to Havana after the revolution in Cuba. With her is a friend from Cuba, Pena Bilbao. Among the subjects at the school, ski-ing is one of the most popular. Miss Castro is twenty years old. In Cuba, a young soldier was alleged to have confessed to have plotted to kill Dr. Castro in Guantanamo. He was stated to have wished to set up a military junta in Cuba.

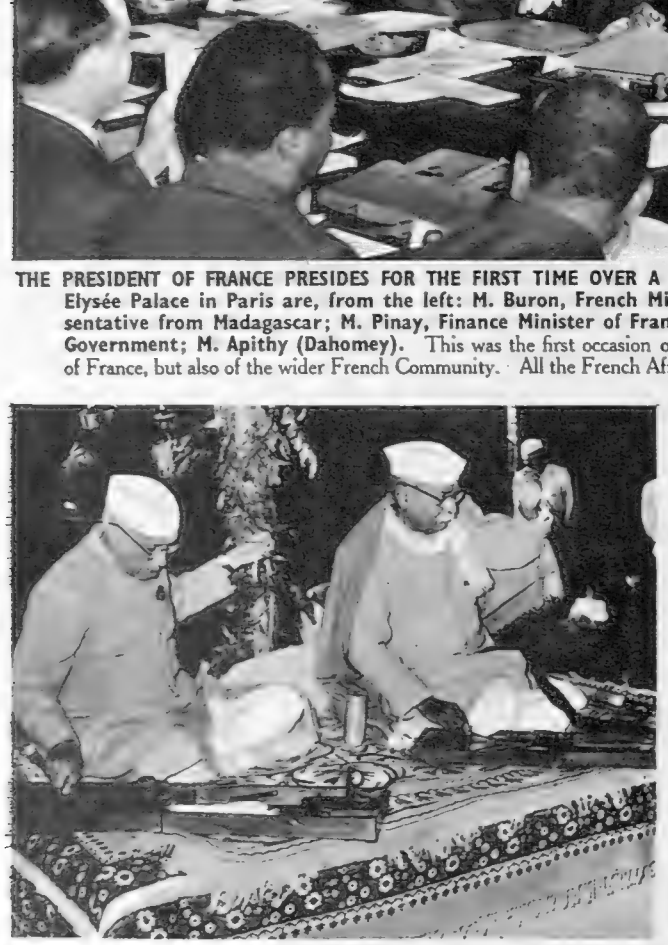
A RECORD PRICE FOR A CHAMPION BULL : An Aberdeen-Angus bull, Elevate of Eastfield, the 1959 Supreme and Senior Champion at Perth, is led round the sale ring. At the 95th annual sale in the Scottish city, Elevate of Eastfield was sold after less than five minutes for 25,000 guineas to an American. It was believed to be a record auction price in Britain for a beast of any cattle breed. The previous record at Perth was 17,000 guineas. The thirteen-month-old champion was sired by Newhouse Edwin Erison out of Evening Belle of Wedderlie and bred by Mr. T. H. Brewis, of Kelso.

A PROTEST MARCH IN KENSINGTON : Art students, carrying banners, congregate outside the Town Hall in Kensington, London. They had marched from the Royal College of Art to the Town Hall to protest that they thought the design of the new public library was "an appalling piece of architecture." They were accompanied on the march by a student band. After they had reached the Town Hall, they moved to the library, which is in the early stages of construction. A spokesman said the students had not handed in a petition, but were trying to change the climate of opinion.

b

THE NEWS IN PICTURES

THE PRESIDENT OF FRANCE PRESIDES FOR THE FIRST TIME OVER A MEETING OF THE EXECUTIVE COUNCIL OF THE FRENCH COMMUNITY : On the far side of the table in the Elysée Palace in Paris are, from the left: M. Buron, French Minister of Public Works, Transport and Tourism; M. Fulbert, representing Middle Congo; M. Tsiranana, representative from Madagascar; M. Pinay, Finance Minister of France; M. M'Ba (Gabon); General de Gaulle; M. Denise (Ivory Coast); M. Jacquinot, Minister of State in the French Government; M. Apithy (Dahomey). This was the first occasion on which General de Gaulle had taken the chair at a meeting of the Council since he assumed office not only as President of France, but also of the wider French Community. All the French African republics were represented. Last year the only French territory to secede from the proposed community was Guinea.



COMMEMORATING THE ANNIVERSARY OF THE DEATH OF GANDHI : Mr. Nehru and President Prasad sit spinning yarn on hand-made spinning wheels in Delhi during the ceremonies commemorating the death of Gandhi. The Mahatma was shot dead while attending a prayer meeting on January 30, 1948.

TRANSITION IN NORTHERN NIGERIA : Three thousand horsemen take part in a charge at the stadium near Kano, built for the region's celebrations of imminent self-government. At the Festival of Kano, the first trade and industry exhibition in Northern Nigeria was opened recently. At the London Constitutional Conference last year it was agreed that the Northern Region would become self-governing on March 15 of this year. The Eastern and Western Regions achieved the status in 1957. Nigeria becomes independent on October 1, 1960.

A YOUTH CONFERENCE IN CAIRO: President Nasser delivers an address to a large crowd at the National Sporting Club on the opening day of the Afro-Asian Youth Conference. *Right*—Indonesian delegates to the conference march round the arena of the National Sporting Club. They were demanding the handing over to Indonesia of the Dutch-administered half of New Guinea. The conference was arranged by the United Arab Republic Youth Council and the Permanent Secretariat in Cairo of the Afro-Asian People's Solidarity Council. It was assumed that the conference was actively supported by the U.S.S.R. and China. The Solidarity Council is believed to be receiving substantial financial assistance from these countries. Several Asian governments were said to have boycotted the conference on the grounds that it would be under Communist control and that Russia intended to use it for recruiting for the Communist World Youth Festival which is to be held in Vienna.

World Affairs

THE MAJOR ISSUE IN EUROPE

By JOHN CONNELL

EARLY last week, a few days before Mr. Dulles's arrival in London (it was—it would be—the irrepressible Lady Littlehampton who observed, "One might have guessed that that little harbinger of spring was on the way!"), and while all the British newspapers were talking of a rift between the Western Powers, Mr. Roshchin, the Russian Chargé d'Affaires, called at the Foreign Office and saw Mr. Selwyn Lloyd. All the ordinary channels of news in the Office dried up, like Arabian *wadis* in the first heat of summer; and hapless diplomatic correspondents were left to think up their own explanations of this sudden call. To be told, with poker-face solemnity, that it concerned "Anglo-Russian relations" hardly helped them in their dilemma, or eased life for them with irascible and enquiring editors.

Later that evening Brussels Radio (could it merely have been in order to tease the Foreign Office?) declared that an invitation for Mr. Macmillan to visit the Soviet Union had been the object of Mr. Roshchin's visit. The usual channels said curtly, "No comment"; and the following morning Russian authorities held up an American Army convoy at the Marienborn check-point, in the Eastern Zone of Germany. The convoy had been allowed to go out of Berlin—it consisted of four 2½-ton lorries carrying jeeps—and into the Eastern Zone; but when it reached the exit check-point, 110 miles to the west, it was stopped. Why? Was it a deliberately staged incident, such as that which preceded Mr. Khrushchev's demand, the previous November, for the three Western Powers to leave Berlin? Or was it a characteristic demonstration by the Russians that, so far as road and rail traffic in and out of Berlin is concerned, they still hold the whip-hand? At any rate, it was not allowed to upset Mr. Dulles's plans nor to prevent Mr. Macmillan accepting the invitation which Mr. Roshchin had indeed extended.

Russian motives and intentions are seldom easy to diagnose, but it would be difficult to claim that, as Mr. Dulles packed his bags for his latest European round trip, Western policy was a model either of clarity or of unity. In these long, long years of the Cold War, what in simpler times we used to think of as "the fog of war" has become the chilly mist of high-level diplomacy. When it is at its mistiest and most evasive is the moment to suspect that new troubles, new perplexities are mounting up, and to take precautions accordingly. Anyone who lived through the summer of 1956, as I did, in fairly close and continual contact with international affairs—and especially the deepening crisis in the Middle East—became disconsolately aware that the effort to trace and evaluate any consistent and unifying policy became a long, weary battle with shadows moving perpetually in a soft, damp moorland mist. Reality broke through, as it has a way of doing, sharply enough; and it was pretty lurid to contemplate.

I have a bleak suspicion—on the evidence it can be nothing more—that we are fumbling and stumbling towards another harsh encounter with reality, this time over Germany. I wish that I could remember a time in my life in which Germany was not a problem. In war, in defeat and surrender, in hunger and misery which is rapidly translated into prosperity and bustling affluence, in the reawakening of nationalism, in the whole tragic, bloodstained and bewildering cycle, there has always, always been a German problem. Nowadays nobody, I suppose, would be such a simpleton as to say that if the German problem did not exist, relations between the Soviet *bloc* and the West would be all goodwill and friendly understanding. But it is surely obvious that without the nagging, insistent difficulty of Germany, those relations would be a great deal easier and less complicated.

It is obvious, too, that the Soviet Union uses this major, perpetual difficulty as a weapon of political and diplomatic warfare. To put it quite brutally: a neutralised Germany, a Germany which had ceased to be a problem, would probably serve Western interests greatly, and it would put the Soviet Union at a moral and tactical disadvantage. When the Korean question, or the sorrows and perplexities of Indo-China, or the difficulties of a waning imperialism in Africa have for the time being ceased to be of immediate significance, there always remains the inextricable tangle of hatred, fear, wrath, old pain and smouldering revenge which is called "the German question."

It was for this reason that Mr. Dulles set off on his latest series of travels, to talk over the Western reply on Berlin and Germany to the Soviet Union's current ultimatum, which must not be described as an ultimatum. The cleavage between opinion, on the one hand, in the United States and Britain and, on the other, in Western Germany and France could no longer be ignored. The difference concerned the timing and the subject-matter of the programme for talks with Russia about Germany; and they displayed a curious intermingling of principle and of tactical thinking.

The British and the American Governments held—and had made their opinion clear in public speeches as well as in private conversations—that there ought to be a conference, at Foreign Ministers' level, with Russia well before May 27, the date on which the Soviet Union has said that she will hand over her powers in Berlin to her satellite, the East German Republic. In addition, Britain and the United States were in a mood to be slightly more "flexible" than were West Germany and France, and to feel their way towards discussing with the Soviet Union new methods of approach to the German problem.

It has been interesting, as well as ironic, to watch a new alignment of interest and of opinion between Western Germany and France. Dr. Adenauer, in a characteristic attitude of stiffness and no-compromise, received—and went on receiving—staunch support from President de Gaulle. There was, and is, a long-term reason for this unity: Western Germany supports France in economic matters; France gives Western Germany her political support.

Admirable and encouraging as this might be on general grounds, it clearly disconcerted and upset both the State Department and the Foreign Office in the conditions prevailing at the beginning of this month. Mr. Dulles was clearly anxious to get Western unity before the answer to the Soviet proposals was formulated; but he was in no mood to get it on the Franco-German terms. Therefore he set off on his journey. It was not a "snap decision," said the Foreign Office, loyal to an old pal; but under pressure admitted that it was taken only at the end of the week before Mr. Dulles departed.

Any lack of unity among the Western Powers was bound to be—as always—exploited to the hilt by Mr. Khrushchev; and Mr. Dulles was quite right to foresee and to try to forestall this danger. But as *The Times* asked, in an especially sagacious and outspoken leader just before Mr. Dulles began his trip, "Unity On What?" To someone who came to political maturity, as I did, in strong reaction against the policies and opinions of *The Times* in the consulship of the late Geoffrey Dawson, it is still—after all these years—a pleasurable surprise to find oneself in agreement with *The Times's* views on any major matter of foreign policy.

But it seems to me difficult to state the present dilemma of the Western Powers more cogently and more simply than *The Times* did in this paragraph:

> At the heart of all the discussions going on in all the Western capitals is one key question. Is the right thing to do simply to stand firm both on Berlin and Germany, not running after the Russians, but rather, as is said, calling their bluff? Or is there any possibility, while standing firm on essentials, of putting forward some new Western ideas on the future of Germany and Western security? Admittedly, any such ideas might simply bounce back from a stone wall of Russian opposition, in which case we should be left simply with the need to stand firm. Admittedly, too, it is hard to imagine any ideas which could bring about a final solution. At the most they could only relieve the tension a little.

I am by temperament a believer in calling my opponent's bluff—when I am quite sure that he is bluffing. There are a good many precedents for the Franco-German appreciation of the Soviet Union's present intentions—a good many reasons for believing that, though Mr. Khrushchev may huff and puff, he has no real desire to blow the house down. If this interpretation is right, then *The Times* was perfectly right, while agreeing that Western unity must be of the utmost importance, to point out that "unity on a wrong approach would present a heavy bill."

More than once—and I am thinking particularly about the Middle East crisis of 1956—State Department officials have confessed, privately and off the record, that unity in accordance with United States beliefs and policies can be secured, and, indeed, on occasion has been secured at too heavy a price. I am one of those who believe that, in the aftermath of the Suez affair, the open and relentless humiliation of Britain and France, in the open forum of the United Nations, was too heavy a price to pay for the unity which the State Department was so eager to impose. When there is a strong probability that they may be right, why impose a unity which may lead to a wrong policy and disastrous results on France and Western Germany over this crucial issue? It was especially disquieting, therefore, that just before he set forth Mr. Dulles chose to give in New York an earnest homily drawing his own—to us and to the French very distasteful—moral about his handling of Suez.

However, as we learnt last week, the Prime Minister and the Foreign Secretary are off to Moscow on February 21, assured that they will be permitted—as Mr. Mikoyan was in America—"to go anywhere and meet the people." The acclamation with which this proposal has been greeted is significant. An old hand in the politico-diplomatic game may be forgiven if he murmurs "Berchtesgaden"—very, very quietly.

MR. DULLES ON HIS TRAVELS: The United States Secretary of State is seen outside No. 10, Downing Street with Mr. Macmillan. They had been discussing East-West relations soon after Mr. Dulles's arrival in London on his flying visit to West Europe. The next day Mr. Macmillan announced plans for his visit to Russia.

GUARDING A TROUBLED BORDER: *Left*—The walled encampments form the fort of Mukeiras, on the frontier of Aden with Yemen. *Right*—The pattern of land round another section of the tents and buildings shows how the men of the Protectorate Levies stationed there till the soil to grow vegetables. Both pictures were taken from a Royal Air Force aircraft flying in supplies. Mukeiras is in one of the six states of the new Federation in Western Aden.

ON ADEN'S FRONTIER

The Work of the Protectorate Levies

Aden is again prominent in the news with the visit of Mr. Alan Lennox-Boyd, the Colonial Secretary, and the formation of the new Western Protectorate Federation. Six states are concerned in what is to be known as the "Federation of the Arab Amirates of the South." They are the Amirates of Beihan and Dhala, the Sultanates of Audhali, Fadhli and Lower Yafa, and the Sheikhdom of Upper Aulaqi. This political grouping is the result of many months of planning, and it is clear that the rulers concerned have entered into it of their own free will, in spite of much propaganda to the contrary put out by Egypt and Yemen.

Last July the Sharif of Beihan visited London and indicated that it was to be hoped that the Federation would have its President, Prime Minister and Ministers, and its own capital. It should perhaps be pointed out that Western Aden is not administered directly by the British Government, but within the various states—eighteen in all—there are British advisers under the direction of a British agent in Aden. The six federated states should gain much economic benefit from their new union. In return Aden Colony will have a protective belt between it and the Yemen border. The Governor of Aden is to keep certain reserved powers over the Federation, notably in defence.

A considerable stretch of the frontier of the Protectorate and Yemen is in the area of the Federation. Whatever the political developments may be, the manning of the numerous forts and strong-points must be fully maintained against the incursions of Yemeni raiders, who are a source of constant trouble. A main burden for the defence of the border falls on the Aden Protectorate Levies. This is a local colonial military force largely officered by British, and there are some white N.C.O.s. The pictures on these pages give an idea of the life they lead in their remote stations on the frontier. They also show something of the training which the tribesmen recruits undergo at the headquarters barracks in Aden. After a full course in weapons and other military subjects they make excellent soldiers.

Supporting the Levies are certain British armoured car units, which can give rapid mobility in operations, and the Royal Air Force. Supplies are frequently carried by air to the various forts. The R.A.F. can also be called upon when needed in operations. Life for the officers and men of the Levies is often lonely. But the need for keeping the frontier secure is all the more necessary now if the new Federation is to develop in peace.

VOLUNTEERS TO ASSIST THE PROTECTORATE LEVIES: Guards of the local tribes are always ready to help the Levies. The tribesmen are sometimes armed and paid by the Protectorate Government and sometimes by their own chiefs. The Royal Air Force aircraft behind the group in this picture is used on the "air lift" to forts on the frontier.

MAINTAINING COMMUNICATIONS BETWEEN THE FRONTIER FOR constructed of stone walls and barbed wire near a fo tions enable the various strong points to exchan

ALWAYS ON THE ALERT: A member of the Aden Protectorate Levies stands with his rifle at the ready behind a barricade of stone and wire. At forts such as Mukeiras constant watch is kept against any raiders coming over the frontier from Yemen.

RECRUITS ON THE BARRACK SQUARE: A squad of tribesmen recently enrolled in the Levies drills at the headquarters of the force in Aden.

REGULAR AND IRREGULAR DEFENDERS OF ADEN: An instructor shows a recruit how to clear a stoppage in an automatic gun at the Aden barracks. *On left*—A chieftain armed with rifle and dagger prepares to join the Levies on a patrol along the frontier.

A radio post has been set up in a "sanger," or outpost Beyond are the frontier hills. Wireless communica- information rapidly concerning possibility of attacks.

MOBILE SUPPORT FOR THE FRONTIER FORCES: A column of armoured cars of a British regiment sets out from Mukeiras. Mobile units are employed to support the Levies on the ground and the Royal Air Force has the task of giving them help from the air when necessary. The forces in the Protectorate are under a joint command in Aden.

NERVE-CENTRE OF LONDON AIRPORT

Round-the-Clock Service is Maintained in the Control Tower in the Airport's Central Terminal Area

Nothing seems so lonely as an aeroplane in flight. Yet at no time between take-off and touch-down need its crew lose contact with the army of men and women on the ground whose duty is to help pilots to navigate the airways and then land safely by day or night in every kind of weather. Typical of these men and women are the staff of the Ministry of Transport and Civil Aviation who work in the 127-ft.-high control-tower which dominates the Central Terminal Area of London Airport. Their eyes and ears are the twin sciences of radar and radio; the aircraft and airmen whose safety rests in their hands are often no more tangible than blips of light on a cathode-ray tube or voices in their earphones.

An airliner approaching the United Kingdom flies along an air lane at a specified height, and may be kept under radar observation at the Southern Air Traffic Control Centre (S.A.T.C.C.) at London Airport throughout the last 150 miles of its flight. Behind darkened windows on the sixth floor of the control tower, Approach Control pick up the incoming aircraft from the S.A.T.C.C. as it nears a radio beacon at either Epsom or Watford. They follow every stage of its progress by radar, guiding the pilot towards the airport and telling him which runway he must use. The weather conditions and any other information he may need are also transmitted.

When the airliner is some five to seven miles from the airport, Approach Control hand over to Aerodrome Control, situated in a glazed penthouse on top of the tower. At this stage the pilot can usually see the runway or its lighting system; but in bad weather he is brought down the glide path to the runway threshold by either the automatic instrument landing system which guides him electronically or by the G.C.A. " talk-down " technique. As the aircraft slows after touch-down, the Ground Controller in Aerodrome Control directs the pilot along the maze of taxiways to the parking apron, where the passengers disembark. 130,000 arrivals and departures are handled each year by the control tower of London Airport.

John Taylor

A DOMINATING FEATURE OF LONDON AIRPORT: The massive red-brick control tower is situated in the Central Terminal Area. In the glass-walled cupola at the top of the tower are the staffs of the Aerodrome Control and the Ground Movement Control. The former are responsible for aircraft taking off and in the final stages of landing, and the latter for all movements of aircraft and vehicles on the airfield. In a darkened room behind the jutting windows of the sixth floor is Approach Control, the staff of which follow every stage of an approaching aircra...

Below—
LOOKING DOWN ON THE AIRPORT: Powerful binoculars are used by a member of the Ground Movement Control to identify individual aircraft and vehicles, and to keep the airfield under close supervision. Sometimes a quick radio message to the airport police prevents a motorist from wandering into danger in an aircraft manœuvring area.

THE TAXIWAY LIGHTING PANEL: The banks of switches control the miles of lights which direct pilots along the taxiways during darkness. A continuous row of green lights leads along the selected route from parking apron to runway. At any crossing the aircraft can be halted by red lights across its taxiway.

On left—
APPROACH CONTROL: The precision approach radar, built by the Telecommunications Branch of the Ministry of Transport and Civil Aviation, forms part of the equipment in this section. It provides two displays. On the right-hand screen the controller can follow the progress of each aircraft in relation to the correct glide-path and vertical centre-line leading to the runway threshold over a range of ten miles. The left-hand screen enlarges the last three miles of the display, making it possible to " talk-down " a pilot with great precision in bad visibility.

AERODROME CONTROL: The ground controller in the foreground supervises and directs by radio all movements of vehicles and aircraft on the airfield. His equipment in the glass-walled penthouse includes a Decca ASMI radar which gives a precise picture of all movements over the entire area. Looking away from the desk in the centre is the air controller, who is responsible for landings and take-offs.

CO-OPERATION IS ESSENTIAL: Close liaison between the air and ground controllers keeps traffic flowing smoothly at peak periods. In the centre of the desk on the right is a collection of flight progress strips, each of which gives details of arrivals and departures. These include the aircraft's call sign; type and destination; estimated time of departure; cruising speed and altitude, and the route to be followed.

THE NORTH AMERICAN AVIATION X-15 ROCKET-POWERED AIRCRAFT IN WHICH AN ATTEMPT WILL BE MADE ON THE FIRST MANNED PENETRATION OF SPACE: The 50-ft.-long aircraft, produced at a cost of about £44,000,000, is towed on to an airfield at Los Angeles. It was due to begin "captive" tests, slung under the wing of a B-52 bomber, this week. The first "drop" tests over the Californian desert will not be made until the end of the month. A succession of trials at increased altitudes will follow, and by the end of the year it is expected that the X-15, carrying a pilot, will have flown to an altitude of 100 miles. This is almost high enough for the aircraft to go into orbit, though its speed would not be great enough to enable it to do so. In appearance, the X-15 is more like a missile with large fins than a clipped-wing aircraft. A mixture of liquid oxygen and ammonia is used to fuel the two engines. The new aircraft is the first of three which are being developed mainly to obtain data with regard to heating, stability, control, and the problem of re-entry into the atmosphere.

MANNED SPACE FLIGHT

Launching a Human Being in a Rocket Aircraft; the Versatile Helicopter

TESTING THE PILOT'S CLOTHING: One of the pilots who may fly the aircraft during trials is in a special aircraft for testing the pressurised flying suit under flight conditions.

A BOMBER WITH AN IMPORTANT TASK: The X-15 rocket-powered aircraft is fixed in position under the wing of a B-52 bomber, in readiness for "captive" tests. During the subsequent progressive tests it is forecast that the aircraft will reach speeds of 4,500 miles per hour. A nickel-based alloy has been created for the outer skin. This is capable of withstanding an expected temperature of 1,300 degrees on re-entering the atmosphere. About half the length of the fuselage is taken by the two fuel tanks containing the mixture of liquid oxygen and ammonia. Behind them is an 8-ft.-long power plant.

On left—

THE EXTRAORDINARY VERSATILITY OF THE HELICOPTER: An H-34 heavy-duty helicopter of the United States Army flies over an airfield at Verona, Italy, prior to landing its "freight"—a small, privately-owned aircraft. The helicopter was on a routine flight when it crossed the path of the two-seater aircraft which had been forced to land because of engine trouble. To avoid a prolonged delay in sending for assistance, the helicopter took the aircraft in tow and flew with it to Verona at a speed of 45 m.p.h.

"MOURNING" IN MALTA

Mr. Mintoff's "Day of Mourning" in Protest Against British Action

Despite the fact that Mr. Mintoff and his Labour Party managed to bring Malta to a virtual standstill as a result of a "day of mourning" protest against Britain's action in revoking the internal self-government of the island, a listless day was passed, without violence and without political tensions coming to the surface. A study of the figures of absenteeism showed that Mr. Mintoff's hold on the industrial workers was as strong as ever, although his influence over the clerical and professional classes appeared to have waned. On the basis of statistics given by British officials, this was the measure of Mr. Mintoff's success:

The harbour was at a standstill. The dockyard was almost idle, with only 1,113 of its 10,159 workers at their jobs. Only one shopkeeper in six opened in Valetta early in the day, the figure falling to one in ten as night fell.

All the cinemas in the city were closed and classrooms were practically bare of pupils, though nearly all the teachers were present.

British Service schools were closed.

One in five of the island's 15,888 Government employees stayed at home. The armed forces went without half to three-quarters of their Maltese civilian labour.

GOVERNMENT WORKERS IGNORE MR. MINTOFF'S "DAY OF MOURNING": They walk to work in the city. Industrial workers supported the Labour Party leader's plea for a general strike in protest against the revoking by Britain of the island's constitution.

READY TO FACE AN EMERGENCY: Government lorries are lined up on a square in the centre of the city. They were ready to convey people to their offices if the buses did not run. Squads of vans were also kept standing by in case of need.

CANDLEMAS CEREMONY ON "BLACK TUESDAY": The Governor, Sir Robert Laycock, welcomes a local priest at the annual ceremony at the Palace. It coincided with Mr. Mintoff's "day of mourning."

ASPECTS OF THE STRIKE: *Left*—Many market stalls were open for business as usual. *Right*—Idle workers listen to Sir Robert Laycock's speech, relayed over loudspeakers, at the Candlemas ceremony. In it, he declared: "To-day has been prescribed for some as a day of mourning. I mourn that there should be some in Malta who, purely for party-political reasons, are already doing their utmost to thwart the strenuous efforts which I, and my advisers, are making to attract new industries to these islands."

THE TERRAIN OF ALASKA : On the way from Galena to Anchorage, flying from north to south across the 49th State, the aircraft passes over Mount McKinley. This mountain, over 20,000 ft. high, is the biggest in North America. The district in the Alaskan Range is a national park. Over much of the terrain huge glaciers descend to the sea. The irregular coastline extends for 26,000 miles.

LIFE IN THE 49TH STATE

Alaska's Increasing Prosperity Makes it a Boom State ; Many Airfields Have Been Built in the Country

LIFE in Alaska over the past century has been subject to sharp changes from quiet fishing amid the snow and ice to the roaring prosperity of boom towns in a gold rush. To-day the recently-created 49th State of the United States is caught in one of the abrupt transitions of modern industrial progress. In the towns, particularly in the south, most inhabitants use cars and spend the money brought by American military forces. Elsewhere, fishing remains the chief industry. Aeroplanes use the many airfields and landing-strips scattered over the frozen and mountainous terrain, providing transport and a communication system of a size and speed undreamt in the days of the dog sleigh.

Alaska has a land area of 586,000 square miles, about twice the size of France, and is the largest state in the Union. Only about 5 per cent. of this land area has yet been surveyed. Much of it is frozen all the year round and hundreds of glaciers make their slow and grinding way to the icy sea. Despite the network of airfields, the country remains a wilderness. About half the population of 210,000 is still dependent on fishing, hunting and trapping. The leading industry is fishing. Over 30,000 people are employed in catching, canning and freezing the fish. Latest figures give 226,000,000 lb. caught in one year. Salmon accounts for about 90 per cent. of the total.

OF STRATEGIC IMPORTANCE : One of the chain of U.S. Air Force bases, stretching across Alaska, is at Elmendorf, near Anchorage. The base is the Supreme Headquarters of all the U.S. forces which are stationed in the country. The Arctic wastes of Siberia are separated from Alaska by the short distance across Bering Strait.

But it is the immense mineral resources which give Alaska its air of a boom state. Most of them are as yet undeveloped, but there are large deposits of gold, copper and coal. Silver, lead, antimony, tin, tungsten, platinum and uranium have also been discovered during the prospecting. Some of the biggest deposits of iron in the world are located in the south-east. Within five years it is expected that oil will be a major industry.

Most of the people live in the handful of towns, separated by vast distances and mountains. Twelve major airlines and twenty-five small commercial lines operate services criss-crossing the country. The population has more than doubled since 1940, when the figure was 72,500. The towns reflect this sudden increase. There was an acute housing shortage in Anchorage, which is now being alleviated by new housing estates. Many of the streets consist almost entirely of bars and night-clubs. New schools, building premises and churches have been built in Anchorage, the largest town, Juneau, the capital, and Fairbanks. At this last, the University of Alaska was opened in 1922. The university now has community colleges in three other towns, Anchorage, Ketchikan and Juneau, and the construction of another university at Anchorage is planned.

About three-fifths of the land is covered by forests. These are capable of supplying a sustained production of 1,000,000,000 board feet of timber annually. The magnificent scenery has made tourism the state's third largest industry. National parks, where elks, bears and other animals are protected by the Government, cover more than 7, 500,000 acres. The landscape is spectacular. Mount McKinley, over 20,000 ft., is the highest mountain in the North American continent; the coastline is broken up by steep fjords; and there are hundreds of glaciers. Northern Alaska is inside the Arctic circle. The sun remains below the horizon from late November until early January, while from early May to early August it never sets. At Fairbanks a game of baseball is traditionally played in the midnight sun on June 21.

The country's recorded history began during the reign of Peter the Great, the Tsar of all the Russias. He commissioned a Danish sea captain, Vitus Bering, to explore the areas east of Siberia. Bering's travels, begun in 1725, showed that Siberia was separated from Alaska by a narrow strait, to-day named after him.

(*Continued on following pages*)

IN THE SNOW: At McGrath Air Base, in Alaska, a tractor pulls an aircraft over the slippery and icy ground. To protect the aircraft's wings from ice and blizzards, heavy canvas covers are fastened over them.

(*Continued from previous page*)

Russian settlements were established in the south-east of Alaska. But in 1867, after about 140 years of Russian control, the country was bought by the United States for nearly £1,500,000. Many Americans felt that the purchase of a tract of "icebergs and polar bears" was of little use. To-day, the mineral resources and the strategic importance have made Alaska as pleasing to the U.S.A. as its loss is regretted by the U.S.S.R.

In the late '80's came the first of the country's spectacular boom periods. Gold was discovered in the Yukon, not far from the Canadian/Alaskan border. More than 100,000 adventurers stampeded for the wilderness to endure the hardships of travel by ship to Alaska and then overland to the Yukon. Many of them gave up when they reached the inhospitable shore. Others came back from the Yukon when they heard the news that gold had been discovered in Alaska as well. In the strike-townships originated legends of the frozen north.

As time passed, the prospectors left, but those who remained built the log cabins and laid the foundations of Alaska's modern towns. Gradually the country was organised as a territory with a Legislature of two Houses. With the coming of the Second World War, Alaska suddenly became a strategic outpost of the continent. Japanese forces made two landings in the bleak Aleutian Islands but were driven off.

To-day, the concept of modern warfare, of long-range strategic bombers, guided missiles and early warning radar systems, has made Alaska of vital importance to American strategy. Large military forces are stationed there. American reconnaissance aircraft fly daily over the frozen wastes towards the Bering Strait. Eskimos are increasingly employed as ground personnel and technicians, and in the streets of Anchorage, the hub of the military system, notices and signposts are constant reminders of the Cold War, in a country where once ice and snow were the chief dangers.

At the beginning of this year Alaska became the 49th State, the first U.S. territory to be admitted since New Mexico and Arizona became States in 1912. The new Alaskan Representative and Senators were sworn in at the opening of the 86th Congress. The state acquired important property rights, taking ownership of oil deposits found along the coast and 100,000,000 acres of federal land. Much of this land is available to new settlers. The indigenous population is made up of Eskimos, Aleuts and Indians—about 35,000 in all. The rest is a representative cross-section of settlers from most of the American States.

AT ELMENDORF AIR BASE: Snow is piled high on each side of the entrance to the headquarters of the 10th Air Division. The base is equipped with jet aircraft, helicopters and reconnaissance aeroplanes. It is reported that many of the jet fighters are Convair F.102 Delta Daggers.

THE TRANSITION FROM THE landing strips scattered pulls a sledge towards is fitted with skis for l port and communicatio

LIFE IN TH

A FILLING STATION: On the outskirts of Anchorage a car is filled with petrol. Fuel costs much more in Alaska than in the United States, but cars are used by many people in the prosperous towns in the southern part.

LIFE IN A BOOM TOWN: The scene in Anchorage is reminiscent of that in an old frontier town. There are many bars and night-clubs. The population has increased rapidly in the last few years.

THE OLD WAYS REMAIN: In market. On both sides to reach the Internatio

: On one of the numerous roughout Alaska, a dog team waiting light aircraft. This ing on the snow. Most trans- ork is carried out by aircraft.

49TH STATE

nchorage, a dog team is watched by the inhabitants as it arrives at the fur f the street can be seen some of the many bars and night-clubs. It is possible al airport at Anchorage in about sixteen hours' flying time from Copenhagen.

THE HUB OF THE AMERICAN DEFENSIVE SYSTEM: Many placards throughout Anchorage, situated on the southern tip of Alaska, indicate the existence of American military and Air Force installations. A continuous radar watch is kept by a network of bases on the look-out for unknown aircraft or ships.

On left—

AT McGRATH AIRPORT: An Eskimo is seen with his three sons. Many Eskimos are employed as ground personnel and as technicians on U.S.A.F. air bases scattered throughout Alaska. On the peninsula of Kotzebue there is a colony of Eskimos living in the traditional manner.

IN PORT: Snow covers the quayside. A vessel is locked in the ice of the harbour at Anchorage, which is frozen during the winter. The U.S. Navy base is situated on the island of Kodiak, not far away from Alaska's largest town. Much of the State is frozen throughout the year.

"VERY MERRY, AND THE BEST FRITTERS"

Shrovetide Festivities: The Eating of Pancakes and Traditional Merrymaking Arose from the Need to Remove Temptation During Lent

By BRIAN VESEY-FITZGERALD

I WONDER how many people now know Collop Monday, even by name? At any rate, it is a safe bet that nobody now observes it. Collop Monday, the last Monday before Lent, was the day on which all the meat in the house had to be finished up, so that all temptation should be removed and it could not be eaten during Lent. It was the same with Shrove Tuesday. This was the day on which all the eggs and butter in the house had to be finished up, so that they could not be eaten during Lent. The best way of getting rid of the eggs was in pancakes.

In those days, at their strictest (they would have been pre-Reformation days) Lent was taken very seriously. Much more seriously, in fact, than ever it had been in the early days of the Christian church. In the time of Irenæus (*c.* 120-202), who was Bishop of Lyons at the end of the second century, a rigid fast, during which nothing whatever was eaten, was observed by some (but by no means all) Christians for forty hours before Easter morning. In Alexandria, during the third century, Christians fasted throughout Holy Week (although I do not suppose that they ate nothing whatever during that time), and in the fourth century the period was extended to forty days, though it was not then a rigid fast as it had been towards the end of the second century.

It was not until the eighth or ninth century that it was decided that this fast should begin on Ash Wednesday, between which day and Easter Sunday there are forty days, excluding Sundays. The fast is not kept on Sundays, and it is for this reason that the Sundays in Lent are known as "in Quadragesima"; that is, within the Forty Days.

With forty days of fasting ahead—or, at any rate, forty days of shorter commons than usual, forty days of doing without some foods of which one was especially fond—it is no wonder that people made the most of Shrove Tuesday. It was kept as a general holiday everywhere, and a pretty riotous one, too. But that was not the original purpose of the day. The name actually refers to the fact that it was the day on which the faithful went to confession and were shriven before the holy season, and this would suggest that it was intended to be a solemn day. It may have been elsewhere, but there seems to be no evidence that English people ever regarded it in that light. It was the last opportunity for merrymaking before Lent and the English, at least, made the most of it.

The day's merrymaking (but that is too mild a word to describe accurately what occurred in many, probably in most, places) was started everywhere by the ringing of a church bell in the morning and was ended by the ringing of another in the evening, after which Lent was considered to have begun in earnest. The morning bell was called the Pancake Bell, and it is still rung, I understand, in many churches. This bell was originally rung to summon the faithful to confession, and it would be interesting to know when it first came to be recognised as the signal for a somewhat boisterous holiday and how it came to pass that the ringing of it passed from the hands of the clergy into those of some member of the laity, usually an apprentice. But come to pass it did: and the right to ring the Pancake Bell was a right that was very jealously guarded.

At York, in the seventeenth century, the Archbishop (it was Lake) tried to put an end to the ringing of the Pancake Bell by an apprentice: an action which gave rise to a serious riot and brought him within measurable distance of physical violence at the hands of the mob. Englishmen, then, did not take kindly to any loss of privilege or to interference with their pleasures. We have since become accustomed to both.

Some of these Shrove Tuesday customs undoubtedly had their origin, as had the pancake, in the necessity to remove temptation during the fasting period: for example, the various customs (there were many of them) connected with eggs. At St. Columb all the eggs were gathered, one handed to each of the inhabitants, and then they were banged one against another, end to end, until only the victor's egg remained unbroken. What happened to the victor's egg I do not know; presumably it went into a pancake. It must have been a gloriously messy occasion, beloved by the children, but the purpose, to remove temptation to break the fast, is clear—although it was soon forgotten.

Some of the Shrove Tuesday "pleasures" seem to have been openly orgiastic in nature. There seems to be no other possible explanation to account for the "wild antics" of Nickanan Night in Cornwall, for instance. And some, to modern minds, were pretty savage. Except for a brief period when Cromwell managed to suppress it—the Puritans objected to it, not because they considered it cruel, but because it encouraged gambling—cock-fighting was the great Shrove Tuesday sport from the time of Henry II. At least, the first definite description we have of it in England dates from his reign, although it was almost certainly introduced by the Romans very early in their occupation of the country. It was finally abolished by law in 1849.

But the majority of the "pleasures" were quite harmless: wrestling, football, hurling, and so on. These were the amusements of the lower classes. The upper classes, when they had nothing else to do, went out and killed something: the lower classes, when they had nothing else to do, went out and kicked a ball about. The pattern has not wholly changed even to-day. Wrestling, it would seem, was never really popular over the country as a whole, but Shrovetide football, a game with no rules and often no goals, was played in towns and villages all over the country, with the exception of Cornwall. There its place was taken on Shrove Tuesday by hurling, the game having, presumably, been brought to Cornwall by the Irish saints during their invasion. But hurling had this in common with Shrovetide football; it was played by all the men of the parish (or a number of parishes), and through the town, and with no definite rules.

Lenten customs, as one would expect, were never common. There was in Cornwall, at one time, a custom of carrying a straw puppet called Jack-o'-Lent through the streets on Ash Wednesday. Jack-o'-Lent was roughly dressed in old clothes, and after the procession he was hanged with due ceremony and a good deal of horse-play. It has been suggested that he was meant to represent Judas Iscariot, although just why Judas Iscariot should be hanged on Ash Wednesday is not clear. It seems much more likely that this was not really a Lenten custom at all, but the survival of some pagan rite—perhaps something to do with the dying winter.

The only genuine Lenten custom seems to have been Mothering Sunday. Although all Sundays in Lent were exempt from the general fast, only the fourth, Mothering Sunday, had anything of the atmosphere of festival. Essentially, it was the servants' festival, for it was on this day that the servants were given a holiday so that they could return home to see their parents. Later it became the custom for children, who were away from home, to return to their parents for the day. The servants—and the custom was adopted for the children—would take presents for their mothers and, traditionally, these presents were flowers and a simnel cake; a very rich cake made of currants, candied peel, spices, and almond paste.

The decline of the Lenten fast has, in the natural course of events, brought about a corresponding decline in the importance of Shrove Tuesday as a festival. There is now no necessity whatever for a festival on Shrove Tuesday, since nobody now really fasts in Lent. No one, so far as I know, now destroys all their eggs on Shrove Tuesday and does without eggs throughout the period. No one, so far as I know, gets rid of all their butter on Shrove Tuesday and buys no more for forty days. Certainly no one now observes Collop Monday. Even fish on Fridays is a custom which is disappearing rapidly. When I was a boy at school we always had some peculiarly revolting fish on Fridays during Lent, but I have a suspicion that even then this was provided from economic rather than religious motives.

But tradition dies hard. Shrovetide football is still played in many places in England. Ashbourne, in Derbyshire, is probably the best known of these, because it is the biggest. The goals are some three miles apart and there are several streams between them, so everyone gets very wet and muddy, which is excellent for publicity. Shrovetide hurling still takes place in Cornwall at St. Columb and St. Ives. The latter game is on the Monday, for that is the day on which St. Ia is said to have walked ashore from her leaf. At St. Columb, I understand, the game is still played in the traditional manner through the town, but the last time I saw the one at St. Ives, though there were still no obvious rules, it had been tamed through being transferred to a public park.

And the pancake survives. Every year we see pictures of the Olney Pancake Race, started in the proper manner by the ringing of the Pancake Bell. Every year we see a picture of some breathless (and rather scruffy) youth holding aloft a tattered bit of batter, which is all that is left of the Westminster School pancake. These events are carefully nurtured: it is the event rather than the pancake that is important. Elsewhere it is the pancake. The pancake not only survives, it flourishes. Throughout England—in homes, in hotels, in restaurants, in transport cafés, everywhere—there is pancake on the menu on Shrove Tuesday. It would take a major catastrophe, nothing less than the dropping of a nuclear bomb the day before, to break this tradition.

Although the Lenten fast is no longer observed, the tradition of abstinence lingers (if faintly) on. On Ash Wednesday many people start to deny themselves some small thing for the whole of Lent. I do: every Ash Wednesday. But I am a poor, weak-willed creature.

SHROVETIDE FOOTBALL: Watched by a large crowd, the players wrestle for the ball in the middle of a stream at Ashbourne, in Derbyshire. The goals for this traditional game are three miles apart and there are several intervening streams.

PANCAKE IN HAND: Competitors in the annual pancake race on Shrove Tuesday at Olney, in Buckinghamshire, run down the course of 415 yards from the market-place. The race is started in the traditional manner by ringing the Pancake Bell.

GERMAN BORDER INCIDENT

The Russians Hold Up an American Army Convoy

It is a familiar Russian practice to remind the West from time to time that in the ultimate analysis Moscow is the master of the road link between Berlin and West Germany. Latterly incidents on the autobahn seem to have been connected with major moves in international politics. In November an American convoy was held up, soon after Mr. Khrushchev had announced his proposals for a change of status for Berlin. Last week, on the eve of Mr. Dulles's European tour, there was a similar incident. Four large American Army lorries taking unserviceable smaller vehicles from Berlin to West Germany, were stopped at Marienborn. The Russians insisted they must examine them, even though the loads were clearly visible. The drivers refused. For two very uncomfortable days and nights the men remained with their vehicles until, after the usual protests and negotiations at a high level, they were allowed to continue their journey.

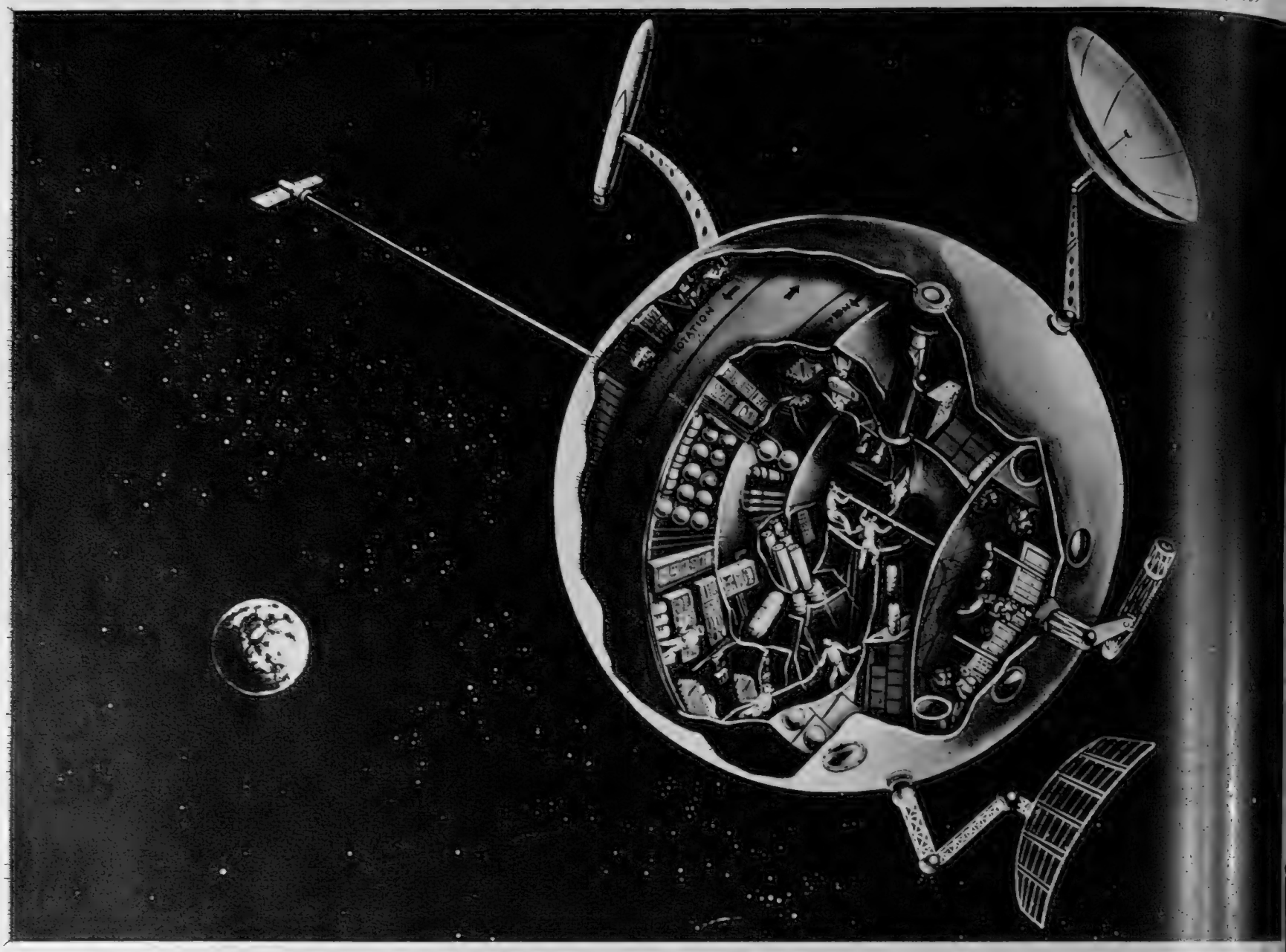
A LONG WAIT: On the East German side of the barrier at the Soviet checkpoint at Marienborn are four U.S. Army lorries. They had driven from Berlin carrying some unserviceable smaller vehicles. When they reached Marienborn, the exit point from East into West Germany, the Russian guards there demanded to examine the lorries. The Americans refused and were kept by the Russians for two days. *On left*—The corporal in charge rides on the running-board of the leading lorry when the convoy is let through.

On right—

NEAR BUT FAR: A driver stands on one of the U.S. lorries behind the barrier.

IN THE COURSE OF NEGOTIATIONS: A Russian officer, surrounded by journalists, walks from the Allied post at Helmstedt, the West German checkpoint, during negotiations for release of the convoy.

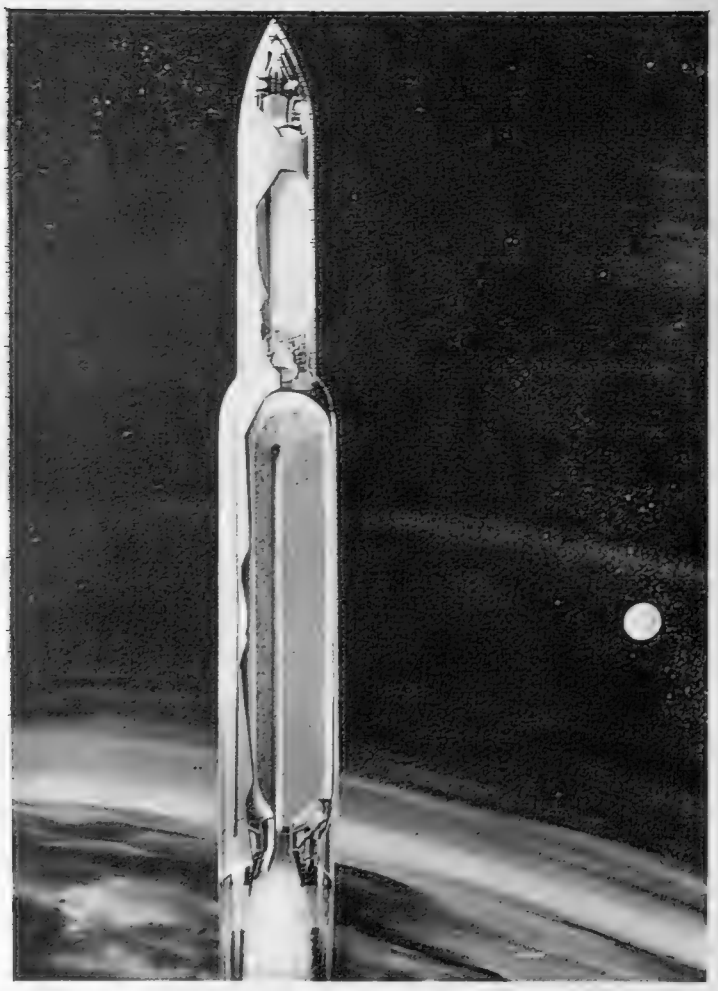
THROUGH AT LAST: The lorries drive into the Helmstedt checkpoint. For two freezing nights the corporal in charge and the four drivers had had to sleep in their vehicles. Food and drink were taken to them over the border from the unit of the American Army stationed at Helmstedt.



ROTATING THOUSANDS OF MILES ABOVE THE EARTH: The artist's impression is of a circular satellite, 60 ft. in diameter and accommodating a crew of fifty. Such a station could be employed on many kinds of scientific research and television relays. Protruding at left is a radar aerial. A telescope is at bottom centre and at right is a solar reflector for generating electric power. At the top, attached to the arm, is a small rocket for transporting stores, food and equipment between the station and the earth. To prevent discomfort to the crew, the satellite would spin slowly and thus create an artificial gravity. The weight of the vehicle would be about 125 tons.

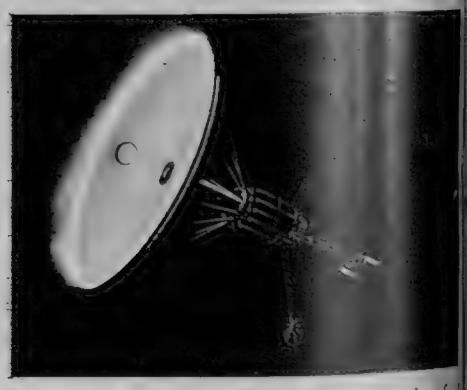
SPACE RESEARCH

Shapes for Manned Stations of the Future



A SOLID-PROPELLANT ROCKET: Two-stage in design, it carries in its nose a long-duration, low-power vehicle for solar system reconnaissance. Most of to-day's big rockets use liquid-propellant systems, which are expensive and complicated. Research for the future is turning to solid-propellant rockets, basically giant versions of fireworks.

AN ATOM-POWERED VEHICLE: The model has a nose designed for nuclear reactor, neutron shield heat exchanger, gamma ray shield and propellant. The tank-like structure at centre houses turbo-generating equipment. Behind is a large radiator. At stern are crew cabins and a ring-shaped propellant accelerator.



GATHERING HEAT FROM THE SUN : A large mirror fixed to rotating rocket motors would focus the sun's ray... The heat could be utilised to generate power thrust... of a few pounds. In the vacuum of space such sm... thrusts, applied over a long duration, could soo... build up speeds of many thousands of miles per hour...

According to recent reports from Washington Dr. Glennan, the Head of the United States Space Administration, has given it as his opinion that the Soviet Union may have a manned satellite in orbit by the end of this year. America is naturally straining every nerve to catch up with her rivals in the Space race.

Much attention is focused on the military aspects of the exploration of the Universe. Such is the ambivalence of human conduct that the possibilities of constructive, as opposed to destructive developments, take second place. But as anyone with the most elementary sense of mankind's history is aware, the two aspects are co-existent, one cannot be without the other.

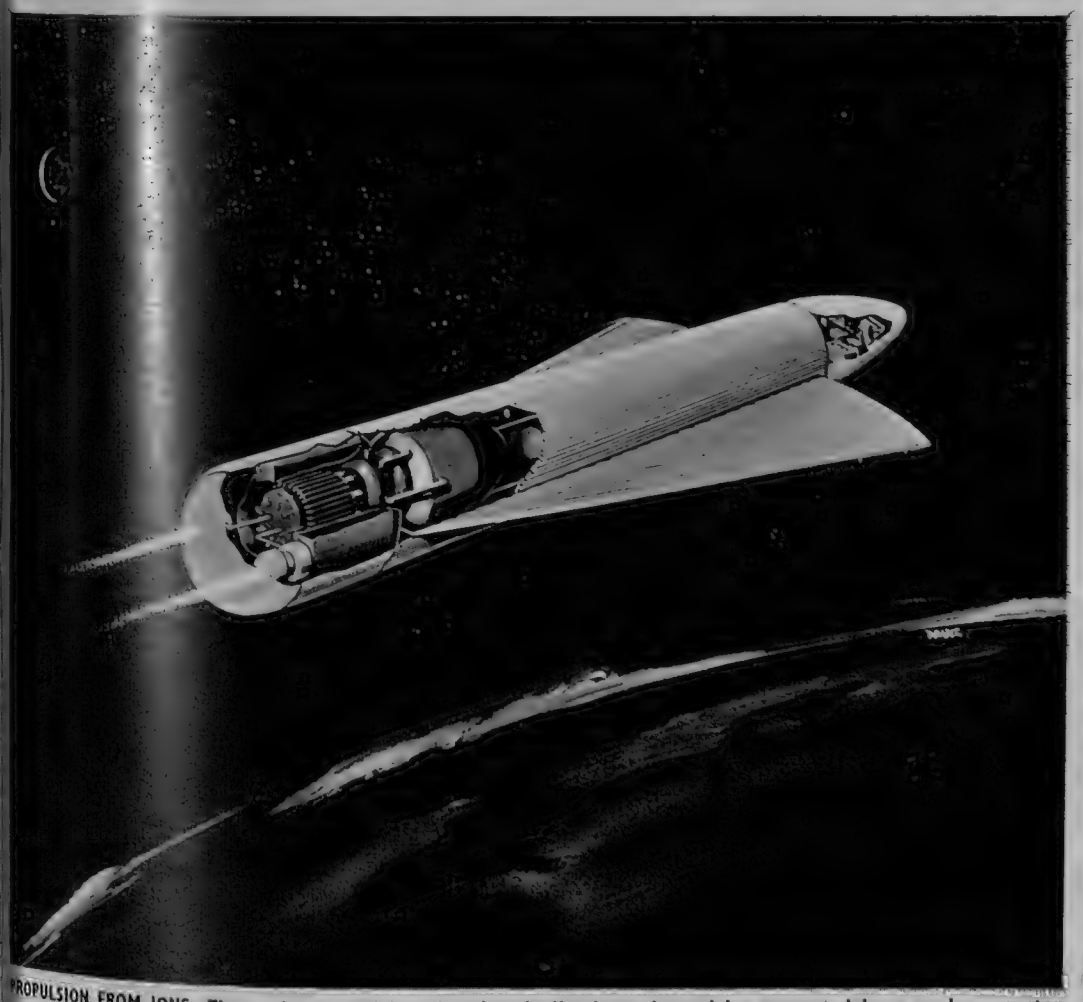
Examples of possible penetrations of space for peaceful purposes are illustrated by the drawings on these pages. All have been drawn for the Rocketdyne Division of the North American Aviation Corporation except one, which is a model devised by the United States National Aeronautics and Space Administration. The designs are intended to show that once space has been conquered by Man in person, there are several types of satellites which could be sent up to add to the sum total of constructive knowledge.

The vehicles devised are of different shapes a... sizes. Any could be used to make, for example... astronomical observations or examine the physi... of the outer atmosphere, or supply far more preci... forecasts of weather than at present ; or even rela... television programmes to all parts of the earth... Such research stations would carry crews of up t... fifty, who would be provided with living an... working quarters inside the vehicles carrying them...

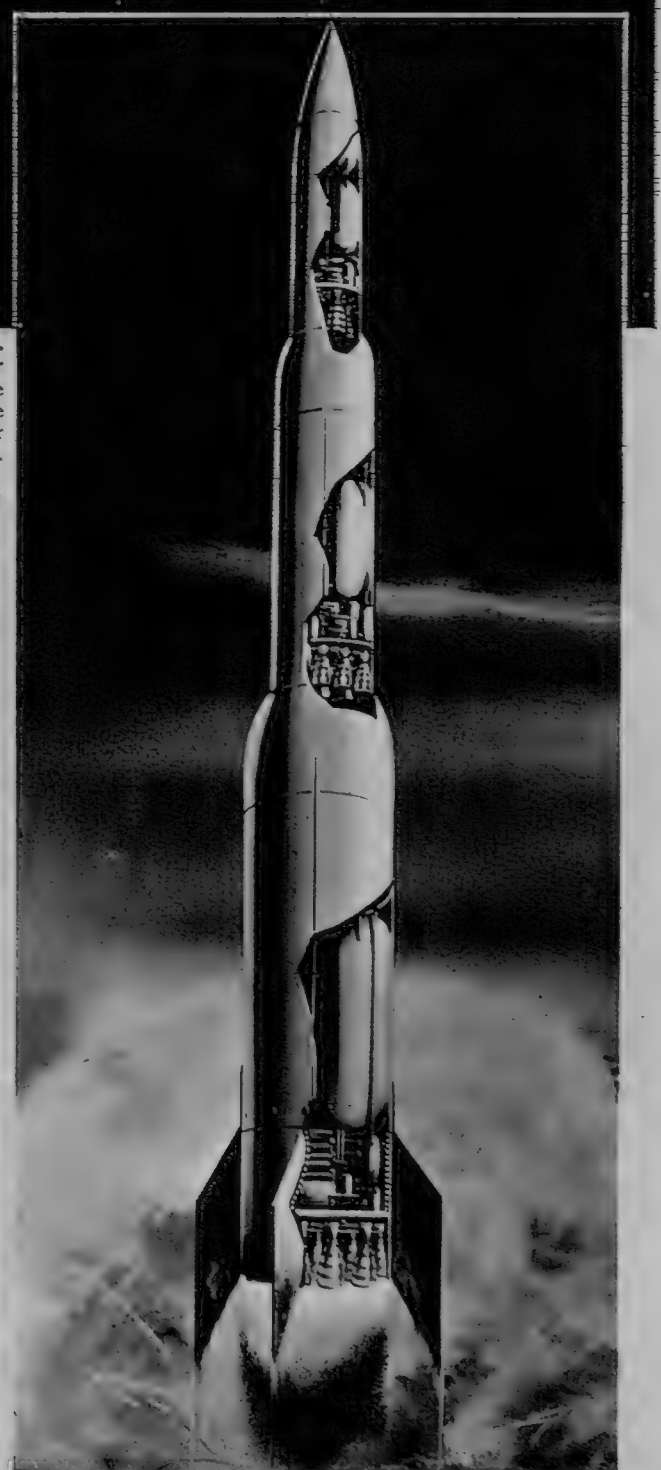
One of the problems exercising the minds o... technicians is the means of propulsion for the... space ships of the future. The rival merits of liqui... or solid motors are eagerly debated. Other pro... pellants might be considered. The sun itself could... be harnessed to supply power, the heat rays being... caught by huge mirrors and transformed int... "drive" for rockets. Another possibility may lie i... the use of ions, or electrically charged atoms.

A nuclear reactor in the nose of a satellite co... create electric molecules and harness them (... carrying a vehicle through space at even faster... speeds than at present obtainable with conventional... rocket engines. Satellite stations could be circular... or cylindrical in shape. To overcome the lack o... gravity at a distance of, say, 23,000 miles from th... earth, the vehicles would be designed to rotate...

A RESEARCH STATION OF CYLINDRICAL SHAPE: The drawing illustrates details of a vehicle intended to be 35 ft. long and 7 ft. in diameter. The crew of five have their living quarters in the centre, with bunks for sleeping. In this section also are the observation and control rooms. Equipped with radar aerial, telescope and solar reflector, the research station would need a launching thrust of 3,000 tons to become space-borne. The projection from the middle of the top is the air-lock through which the crew could enter or leave. The cylinder would be another of the space ships of the future which would rotate slowly to provide comfort for its inmates.



PROPULSION FROM IONS: The engines are driven by electrically-charged particles generated by a nuclear reactor. The wing-shaped projections are radiators to dissipate excess heat and the vehicle's direction is controlled by swivelling the rocket motors. In an ion rocket the propulsive force would be obtained by the discharge of ionised particles rather than gas, as is the case with the conventional rockets. Ion-propulsion should enable rockets to develop very high speeds and run for long periods with only a small consumption of fuel.



HEADING FOR SPACE: A three-stage liquid-propellant rocket blasts its way clear of the earth's atmosphere. Each stage of the vehicle is powered by a cluster of relatively small motors instead of larger single units. This arrangement means that the power plants can be relatively cheap to run.

IN GROSVENOR SQUARE, IN LONDON: The new United States Embassy Chancellery is expected to be completed by the end of this year. Designed by one of America's leading architects, Eero Saarinen, the building occupies the west side of the Square. The six-storey structure has a facing of Portland stone to blend with the existing buildings. The general design is in a U-shape, with a connecting link across the back on the lower and upper ground-floor levels. The crowning parapet wall, patterned for chiaroscuro effects, will have the Great Seal of the U.S. set in a central position. The upper ground floor is raised for an unobstructed view of the trees which are a feature of the Square.

IN KENT: A latticework of scaffolding shroud one of the towers which are being con structed to support a bridge spanning th Swale. It will link the Isle of Sheppey wit the mainland and is due to be complete by the end of the year. The Kingsferr bridge is of the vertical lifting type t enable ships using the channel to pas underneath. Construction work has bee carried on with day and night shifts

MODERN BUILDING

Progress of Construction Work in London, Kent, New Jersey and Rome

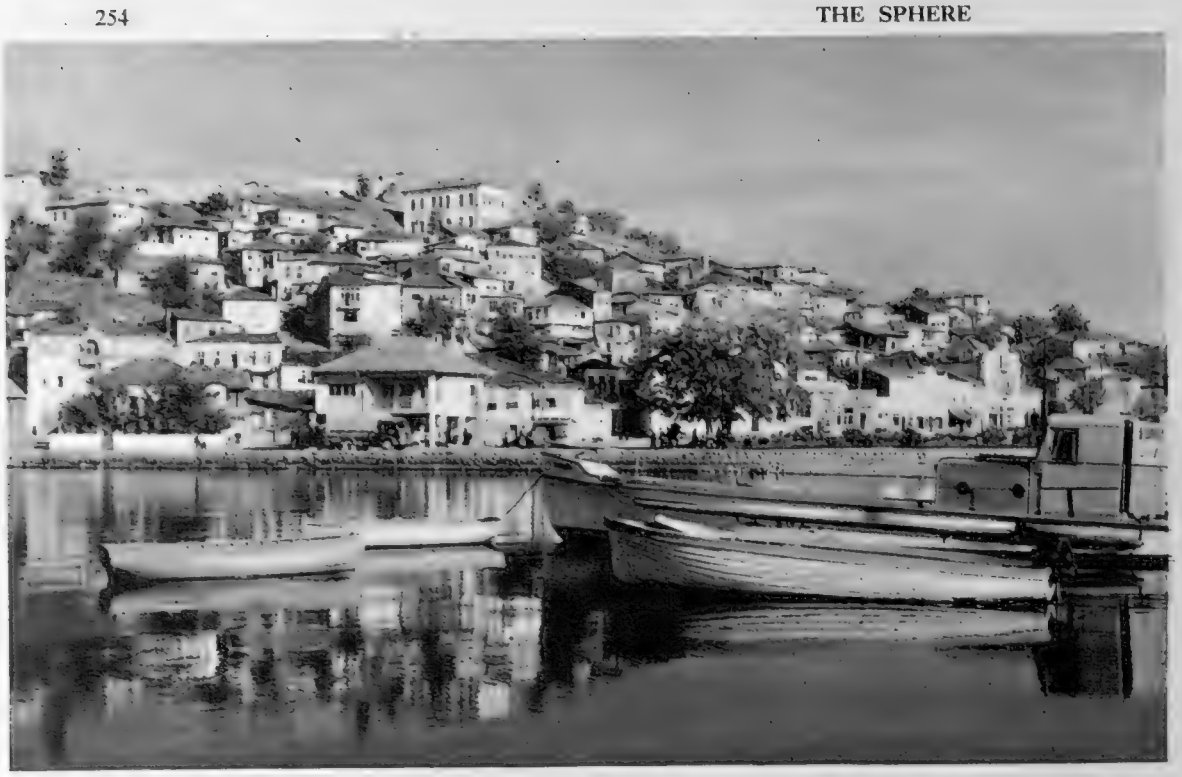
On left—

IN THE UNITED STATES: An 87-ft.-high aluminium dome constructed near Plainsboro, in New Jersey, houses what is claimed to be the world's largest nuclear reactor owned and operated by private industry. It was constructed by ten companies in non-competing fields for the purposes of basic research. The core of the reactor, which has a capacity of 5,000,000 watts, is placed 27 ft. below the surface of a tank of water. This acts both as a shield and as a cooler.

On right—

IN ROME: Work is already well in hand on the site of the Olympic village for the Games in 1960. In the foreground is the "Little Sports Palace," which is already being used for boxing and other indoor events. The concrete bowl in the background is the football stadium with its elevated tiers of seats. Running across the centre of the picture is the tree-lined Corso Francia.

A NEW TELEPHONE EXCHANGE IN LONDON: Overlooking the trunk road, Route 11, being built through the City, is the new exchange on Fore Street. In the foreground is Coleman Street. In the background left is Roman House, a modern office block which has been in use for about a year. It is hoped that the telephone exchange, which has five floors above ground, will be open early in 1960. It will serve as a relief for the Monarch and Metropolitan exchanges. The ultimate capacity is planned to be about 7,000 lines.



YUGOSLAVIA—Boats lie at anchor on the placid waters of Lake Ohrid, in the extreme south of the country. Background is the town of Ohrid. Relatively inaccessible, the district, with its many medieval monasteries, is seldom visited by tourists.

The Sphere of Travel

ROUND EUROPE ON HOLIDAY—II

Suggestions for Holidays on the Move in France, Spain, Portugal, Morocco, Italy, Yugoslavia, Austria, Greece and "East of West"

By GORDON COOPER

IN my last article (January 31) I dealt with touring suggestions in Northern Europe; now I take you to the more southern lands where you can be reasonably sure of warm sunshine. At the same time, it can often be extremely hot in these countries, so bear this in mind when arranging the date of your holiday. No good results from a holiday abroad if you become utterly exhausted, which can often be the case, especially during the High Season months of July and August. Personally, I prefer our own British climate at this period. In any case, if you must travel in the heat do try to take a siesta after lunch; it is a grand tonic for sightseeing in the later afternoons and for enjoying yourself after dark.

FRANCE.—In this least discovered of European countries, I favour strongly an unusual two-week potpourri of French life and culture offered by the Ramblers' Association Services. It includes three days in Paris, a trip to Blois, Orléans and the Loire Valley (with visits to four of the well-known châteaux and a free day in Blois), then on to the enchanting Dordogne and Vezère Valleys, when the caves at Lascaux and Les Eyzies will be visited. Next, comes Carcassonne, perhaps the most perfect example of a medieval fortress in Europe, followed by relaxation in the colourful and unspoilt fishing village of Collioure, where the Pyrenees meet the Mediterranean. Nearby is the lively city of Perpignan with the palace of the one-time Kings of Majorca.

SPAIN.—I would warn any intending traveller to avoid any tour of Spain—especially Southern Spain—during mid-summer, except for that portion of the country which lies west of San Sebastián, along the Atlantic coast. Both Lammin Tours and Motorways offer admirable coach tours covering Spain and Portugal. The first concentrates on Northern Spain, including a visit to glorious Santiago de Compostela. The second takes you quite unusually into Estremadura, with visits to Badajoz, Mérida (best Roman ruins in Spain), Trujillo (home of the Conquistadores) and Cáceres (a remarkable medieval city). I wish also to recommend a Grand Tour of Spain offered by Spanish Tourist Service, which takes in Tangier; and there are the various tours arranged by A.T.E.S.A., a semi-official organisation, particulars of which can be obtained from any good travel agent. Then, for those who like to do their own planning, there are many long-distance bus services; a folder listing them can be obtained from the Spanish National Tourist Office.

HIRING A CAR FOR TRAVEL ABROAD

The advantages of having a car on hand during your holiday abroad are enormous. You can get away from the crowds whenever you wish and you can find those secluded little coves which you could not possibly reach on foot. The prospect, however, of driving down to the Mediterranean does not always appeal, particularly with older folk, who find the "routes nationales" somewhat harassing. Hiring a car locally has its drawbacks, too, if you undertake the negotiations yourself. A booklet just published by British European Airways on their car-hiring plan, which they have developed considerably in recent years, will attract many people to make use of this excellent service. For British holidaymakers abroad it has several interesting features.

A proportion of the charge can be paid in sterling, leaving your foreign money allowance largely intact, and it is not necessary to put down a deposit against possible damage to the car. Any travel agent representing British European Airways can arrange for such car hire in conjunction with a B.E.A. air ticket. When you arrive at the Continental airport, whether it be Ajaccio, Barcelona, Dinard, Lisbon or Venice, the car you have hired will be waiting for you, and when you return you simply hand over the car at the airport to the contractor's driver. Cars available on this now quite comprehensive service vary from country to country. They are all modern and up-to-date. In Austria you can hire a Volkswagen, an Opel or a Mercedes. A Vauxhall Victor is also available. In Denmark your choice varies from a Ford Anglia to a Cadillac with automatic transmission. In places like Gibraltar most cars are British.

Generally speaking, you are not confined to the country where you hire your car. Exceptions are Bergen and Stockholm, where travel is restricted to Scandinavia, and also in Corsica, Cyprus, Greece and Libya, where one cannot leave the country. Naturally, countries of travel must be stated when bookings are made, so that the contractor can provide the necessary customs documents, which, incidentally, cost nothing. The car need not necessarily be driven by the hirer. Any member of the party who holds a driving licence and is over twenty-one years of age, can take his turn at the wheel.

These self-drive rates vary considerably not only according to the size of car, but also according to period and to country. A quick glance through this B.E.A. booklet tells you that in Norway the minimum basic rate is £1 a day, plus a kilometric rate of 5d. a mile in summer. In France the minimum summer rate for fifteen days is £2 4s. a day and 2½d. per kilometre over and above the free allowance of 100 kilometres daily. Cars are available in Biarritz, Bordeaux, Cannes, Juan-les-Pins, Nice, and Paris. It is all very simple to arrange. You just go to your travel agent and tell him where you are going and what type of car you require, and he will do the rest.

W. D. C. C.

Above:

ITALY—Framed in the dark outline of a cave entrance is the small seaside resort of Scilla, at the southern tip of Italy, looking out across the Straits of Messina to Sicily.

PORTUGAL.—In addition to the tours just mentioned which embrace Portugal and Spain, I favour a coach tour (Wings Limited) of Northern and Central Portugal, starting from Vigo, with a side excursion to Santiago de Compostela, and taking you down to Lisbon and nearby Estoril (Portugal's most fashionable resort). This tour includes a visit to a wine lodge at Oporto (I recommend you to take a packet of dry biscuits to nibble between drinks). There are visits to Sintra, Nazare, Coimbra and Batalha. I like also the leisurely coach tour offered by Lammins, which includes three nights at Figueira da Foz (most popular Portuguese seaside resort) and three nights at Ericeira, a delightful fishing village, notable for its excellent lobsters and fine beach.

MOROCCO.—This country is not in Europe, but as it is so easily reached via Gibraltar and is becoming an increasingly popular holiday area, I give it a brief mention here. Except for Tangier, Morocco should not be considered for a mid-summer holiday—the heat in most parts is intense—but it is extremely pleasant there in the spring and the autumn. Among the agents offering Moroccan tours are Barbary Tours, Fairways and Swinford, and Motorways, while Cook's and Horizon Holidays offer opportunities for a holiday in Tangier.

ITALY.—Almost every travel agent offers Italian tours, but the majority follow a conventional pattern. There are a few, however, which provide original ideas. One thing I would emphasise: do not try to cover too much ground in a short time in this country; far better to be selective, and purposely leave interesting places or delightful stretches of

On right:

PORTUGAL—Beach umbrellas ward off the sun for visitors sitting on the Tamariz beach in Estoril. The resort is on the southern coast between Cascais and Oeiras.

country for future journeys—this advice, of course, applies to most countries. Then, especially in the hot summer weather, you may well find that train travel is less exhausting than travelling by coach. For this reason I like the independent tours by train to various art cities organised by C.I.T. (a company which has offices in all the main centres).

Wings, Motorways, Fourways, and Lammins all offer sensibly planned leisurely tours; Lammins, too, take you down to Southern Italy (Apulia and Calabria) and to lovely Sicily. The C.I.A.T. semi-official organisation also runs a number of regular circuits, with the opportunity of arranging your own stop-overs in desired places. Many parents, I feel sure, will welcome Erna Low's Fine Art Tour of Italy for Young People (ages 16-21), for it aims at giving them an introduction to Italian art and life and at showing them some of the most beautiful historic and artistic sights. Who knows but such a holiday may result in a lifelong love for a land that has no peer. Again, for older people, Harold Ingham offers a Music Tour in Italy (Rome, Florence, Venice, Desenzano and Verona) and a Painters' Holiday Course at Castiglioncello (a small seaside resort near Pisa).

YUGOSLAVIA.—For those who do not wish to be whisked at speed along the Dalmatian coast, there are three tours which appeal to me: a cruise by semi-cargo boat along this coast to Greece, organised by Fairways and Swinford; a cruising holiday among the islands of the Yugoslav coast offered by Ramblers; and a fascinating amble from Trieste to Athens by Hickie Borman (specialists in Yugoslav travel). I am also attracted by Fairways and Swinford's tour into Serbia and Macedonia (with its Byzantine monasteries), for this is a journey I hope to make myself this year. The itinerary takes in many places that, because of their relative inaccessibility, are seldom reached by tourists. Much of the journey is through mountainous country, but there is time to relax at Lake Ohrid.

AUSTRIA.—A rather unusual, but most delightful, way of seeing Austria would be to go on one or other of the two horse-riding holidays organised by Centaur Tours. Each of these personally-conducted riding holidays consists of small parties, who cover about twenty miles daily, the main part of the ride being along country lanes, field tracks, and through shady woods. A lorry transports the baggage, and there are grooms who clean and feed the animals, so that you have no work to do. One of these tours sets out from, and returns to, Klagenfurt, taking you through Carinthia, a district of Austria noted for its sunny climate, beautiful lakes, and romantic scenery. The second tour is based on Vienna, whence little-known country is visited, including the Waldviertel (north of the Danube) and the Burgenland, to the east; both these regions were until a short time ago Russian-controlled.

Incidentally, in my next travel article (February 28) I will be writing on this part of Austria. You may not want to go horse-riding, and for such persons I tender two other suggestions: a trip by river paddle-steamer down the Danube from Linz to Duernstein—a delightful journey—thence by coach to Vienna, where four nights are spent, after which the tour continues on to Salzburg, or some other chosen resort, for the rest of the holiday: this is a F. and W. Ingham trip. The other holiday is one offered by Harold Ingham: a Vienna and Salzburg Festival Tour, with tickets included for performances; while this same agent has also a Passau Festival Tour. Passau, by the way, is a delightful city, rich in baroque architecture, and it stands on the confluence of three rivers, the Danube, the Inn and the Ilz, and although actually in Germany, it adjoins the Austrian frontier and is the starting-point of the steamer service down the Danube to Vienna.

GREECE.—Despite its comparative inaccessibility, except by air, this country offers such unique attractions that it must tempt many to enjoy a holiday there. There are the specialist Hellenic cruises run by Swans and by Fairways and Swinford; and for those who have to study cost I like the tours offered by Harold Ingham and by Ramblers. In the former case, the price is only 49 guineas, but this entails travelling "deck" on the ships, while excursions would be an "extra." With Ramblers, the cost is £68, but the journey between Brindisi and Athens is made by air, and a seven-day coach excursion to the classical sites is included. But perhaps the finest holiday of all is that planned by Oceanways on a privately chartered cruise ship, for it includes trips to islands rarely visited, such as Mersin and Anitalia, besides calling at Crete and Rhodes. The itinerary also permits of visits to Chanak (for Troy) and Istanbul. This is, in fact, a holiday I am planning for myself. It takes place at the end of September.

"*EAST OF WEST.*"—There 's been a lot of Europe that has been more or less out-of-bounds to foreign tourists since the end of the war, but the "Iron Curtain" is being gradually raised, and it is now possible to visit all those countries which lie "East of the West." Every one of them seems to want to encourage tourism, but while there is always the lure of seeing how the people of the Communist countries live, yet you must not go there expecting Western standards of comfort and efficiency. Generally speaking, I would say it is best to go on an organised tour of a travel agent, otherwise you will probably get into a most irritating mesh of red tape. In my last travel article I mentioned holidays in Poland; now I will deal briefly with Russia, Czechoslovakia, Hungary, Rumania, Bulgaria and Albania.

The specialist travel agent for all these countries is Progressive Tours, while several firms now include Russia in their brochures, including Horizon Holidays and Lunn's, both of whom offer flights to Moscow travelling by the giant Russian T.U. 104 jet aircraft. Incidentally, despite their advertisements, I find that writing to the national information offices is an unsatisfactory business. That is why I advise dealing through travel agents who are better able to cope with headaches. Of these Communist countries, I think that Czechoslovakia and Hungary might be the most rewarding, and they are also quite easily reached. The former land offers "Golden Prague," with its wonderful variety of architectural styles, while in the countryside there are many resorts and spas, also the lovely Tatra Mountains; and the folklore is quite outstanding. Hungary has Budapest, Estergom, Eger, Debrecen and Lake Balaton as its outstanding sights.

EAST GERMANY.—There are, as far as I know, no conducted tours of East Germany, but Progressive Tours and W.T.A. can arrange independent travel arrangements. Conditions, however, are rather difficult, so be prepared to encounter trouble.

FOR FURTHER INFORMATION

AUSTRIA . . . 219, *Regent Street, W.*1.
CZECHOSLOVAKIA . . . 45, *Oxford Street, W.*1.
FRANCE . . . 178, *Piccadilly, W.*1.
GREECE . . . 34, *Hyde Park Square, W.*2.
ITALY . . . 201, *Regent Street, W.*1.
PORTUGAL . . . 20, *Regent Street, S.W.*1.
SPAIN . . . 70, *Jermyn Street, S.W.*1.
RUSSIA . . . *Intourist*, 314, *Regent Street, W.*1.
YUGOSLAVIA . . . 143, *Regent Street, W.*1.

RECOMMENDED SPECIALIST TRAVEL AGENTS

Barbary Tours, Shepherdswell, near Dover, Kent.
Centaur Tours (A. Adams), 38, *Carnably Street, W.*1.
C.I.T., 10, *Charles II Street, S.W.*1.
Fairways and Swinford, 18, *St. George Street, W.*1.
Fourways Travel (Marshall and Snelgrove), *Oxford Street, W.*1.
Hickie Borman, 24, *Charles II Street, S.W.*1.
Horizon Holidays, 17, *Hanover Street, W.*1.
F. and W. Ingham, 26, *Old Bond Street, W.*1.
Harold Ingham, 15, *St. John's Wood, Harrow, Middlesex.*
Erna Low Travel Service, 47, *Old Brompton Road, S.W.*7.
Lunn's, 36, *Edgware Road, W.*2.
Motorways, 85, *Knightsbridge, S.W.*1.
Oceanways, 23, *Haymarket, S.W.*1.
Progressive Tours, 100*a*, *Rochester Row, S.W.*1.
Ramblers' Association Services, 48, *Park Road, N.W.*1.
Swans, 260, *Tottenham Court Road, W.*1.
W.T.A., *Gillingham Street, S.W.*1.
Wings, 48, *Park Road, N.W.*1.

BUILDING FOR BRITAIN'S FUTURE

The Nuclear Age Comes to Gloucestershire

WORK GOES AHEAD ON THE WORLD'S FIRST FULL-SCALE COMMERCIAL NUCLEAR POWER STATION: A general view showing the advanced stage of construction of the No. 1 Reactor at the atomic power station which is being built for the Central Electricity Generating Board on a site of about 96 acres at Berkeley, on the estuary of the River Severn, in Gloucestershire. A.E.I.–John Thompson and the associated civil contractors, Balfour, Beatty and Co., Ltd., and John Laing and Son, Ltd., started work on the site twenty-five months ago, and expect to complete the station in another seventeen months. The plant consists of two natural uranium, CO_2 gas-cooled, graphite-moderated reactors supplying heat to sixteen boiler units, eight boilers being associated with each reactor and grouped round it to form a complete unit. Each boiler will contain a steel pressure shell approximately 70 ft. high by 18 ft. in diameter. Steam from the boilers will be used to drive four dual-pressure turbo-generators of rather more than 80,000 kilowatts capacity. The two reactors are enlarged and improved versions of those at Calder Hall, in Cumberland.

MODERN INDUSTRIAL STRUCTURE: Against the background of the River Severn, a boiler for No. 1 Reactor awaits its protective casing. *Left*—The view, taken from the top of No. 1 Reactor, shows one of the cased boilers (foreground). Behind it, No. 2 Reactor takes shape.

SELLING GOODS BY SLOT MACHINE

By "THE SPHERE" INDUSTRIAL CORRESPONDENT

ON entering an experimental food store that opened recently in New York, the housewife is faced with a broad array of glass-fronted cabinets displaying the goods that the shop has to sell, and is presented with a key. This fits slots to each cabinet, but does not open them. If she puts the key in once, she has bought one of the packages on show; if she wants two, she puts the key in twice. As she goes round the shop, clicking away her choices, each purchase is automatically recorded at an exit till, and the requisite packages made ready. At the exit she puts in her key, obtains the totalled bill, pays it and receives all her packages in a bag, down a chute.

Whether the idea will spread in the United States as a practical application of automation to self-service is not clear yet. (One can think of snags: are the eggs always at the top of the bag?) There is certainly nothing approaching it here yet. But one of the largest British companies in this developing "automatic vending" business is seriously interested and obtaining details. This is a business where at present the whole accent is on innovation: partly because of technical development, and partly because in the last five years, reawakened from hibernation, it has been hastily re-adapting itself to a radically changed consumer market.

problem of modernisation. In some cases it was impossible to modify a machine to take the 2d. or 3d. then required for what it used to sell for a penny in 1939.

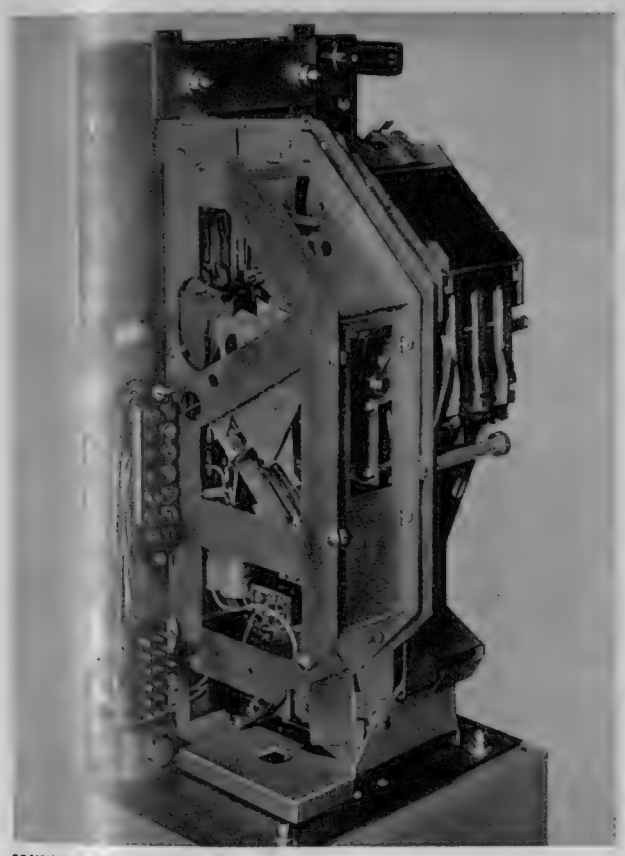
This big "once-for-all" reconversion to the depreciated currency of the post-war era was one thing: continuing inflation was another. A slot machine has price stability built into it; certainly one cannot adjust the prices of what it sells as easily as one can in the shops. Devices to give change can be built in: but manufacturers often try to do without these as another thing to go wrong. The machine designer has indeed to incorporate into it his own reckoning of how prices may move over the years: should the machine be made to take the twelve-sided threepenny-bit, for example, stick to pennies, or go straight to sixpence, as many built or modified recently have?

It seems likely at present that the main possibilities of growth in this business lie outside the traditional machine offering confectionery and cigarettes—in selling other things, and selling them in other places. The other long-established use of coin-operated machinery is in the sale of services; here innovation and expansion are offering the manufacturers lively business. Coin-box telephones are still manufactured primarily by the British firm founded by the original designer, formerly called

for a lever pressed by the customer: there is always a coin rejector mechanism, and this may involve several stages to check the coins beyond doubt. This is more important in machines selling goods than in those supplying services; a weighing-machine or a telephone operated with the wrong coin only loses the time during which an honest customer might have wanted to use it, but a machine vending goods loses the value of the article as well.

Machines selling the traveller a specified amount of insurance have been in use at airports for several years, and demand for them is growing. One puts in one's coins, draws out a form and signs it, then posts it in the letter-box provided. The National Automatic Machine Company has an order for machines to go outside dry cleaning shops to accept goods out of hours. One puts in 2s., extracts a large plastic bag, fills this with the garment and "posts" it through a large fool- and thief-proof opening. (One has always to consider the kind of people who will risk imprisonment by taking pennies from a newspaper tray.) When you collect the cleaned article you pay the difference.

A market which has developed rapidly since the war is the factory. More and more companies, wishing to



COIN-BOX TELEPHONES: The picture shows the complex internal mechanism of the latest design in coin-box telephones which will enable trunk calls to be dialled throughout the country. The instruments (made by National Automatic) are now beginning to be installed in Britain's 74,000 telephone kiosks.

SLOT MACHINES IN PRODUCTION: A general view at the factory of National Automatic Machines Limited, in London, showing work in progress on the production line of one particular type of slot machine. The machines will be used for the sale of cigarettes and sweets. Many hundreds of slot machines for selling cigarettes are placed in selected positions throughout the country every month.

For rationing, primarily of sweets, condemned the slot machines of Britain to nearly fifteen years' cold storage; whereas in the United States, where shop assistants became considerably scarcer than goods ever did, the war period, if anything, livened the business up. It was not really until 1953, when sweet rationing was ended, that the post-war history of this trade began in Britain. In the words of the recently-published census of distribution for 1954: "This form of trading was almost non-existent in 1950, but is known to have developed rapidly since then." Nobody, incidentally, knows the full turnover of automatic machines, since sales by those in shops are not recorded separately. But in 1954 slot machines owned by other companies, such as those on railway stations, sold £2,300,000 worth of goods, mainly sweets and cigarettes, and their sales have probably more than trebled since then.

Whether the actual volume of goods sold through the slot yet exceeds pre-war totals is not very clear. In the '30's, it has been reckoned, there were perhaps 75,000 slot machine "columns" in use (the column, representing one selling outlet, is the unit rather than the machine, which may contain one or several). When the long interregnum of enforced idleness came to an end along with sweet rationing, operators such as the British Automatic Company were faced with a formidable

Hall's Telephone Accessories Limited, but now merged with the Elliott Brothers group into Associated Automation. Mr. F. W. Hall, who installed the first coin telephone at Charing Cross Station in 1910, is still active as a consultant to the company.

Technical reorganisation of the whole British telephone system, with gradual extension of the subscriber trunk dialling system being introduced in Bristol this year, will eventually mean replacement of the country's 125,000 coin-operated telephones with an entirely new instrument designed by the company. This will have slots for shillings, sixpences and threepenny-pieces, with no A or B buttons; you do not have to put the money in until the call is answered. All trunk as well as local calls will be charged in units of 3d. (it buys about twelve seconds from Bristol to Edinburgh). The whole programme of replacement, which is necessarily geared to the technical reorganisation of exchanges and trunk circuits, will take 10-12 years.

Other familiar services one can buy through the slot include luggage lockers hire, telling one's weight, Tube train tickets, and stamps. The National Automatic Machine Company, the slot machine manufacturing subsidiary of the Associated Automation Group, has designed a number of entirely new machines for post offices here and in other countries which supply these, and, indeed, stamped envelopes, letter cards, and postal orders as well.

Technical design of coin-actuated machines has to be within quite precise limits (though in practice, with coins of all ages, one finds a degree of variation from the Mint standards for coins). The inserted coin either trips an electric circuit or acts as a mechanical linkage

provide refreshment services that can be used quickly and which take the least possible labour, have installed machines for soft drinks such as Coca-Cola, along with cigarettes and chocolate. A considerable volume of milk is now being sold through machines which deliver cartons or small bottles; machines that will make fresh tea and coffee, to an American design, are now being manufactured, and a fairly wide range of beverages, heated foods, ice-cream, soft drinks and snacks can be provided for canteens or cafeterias through various types of slot machine. Some of the fairly small sandwich machines are ingeniously made so that customers can select different fillings; in machines selling heated cans, or "hot dogs," the heating may be done by high-frequency currents within the machine.

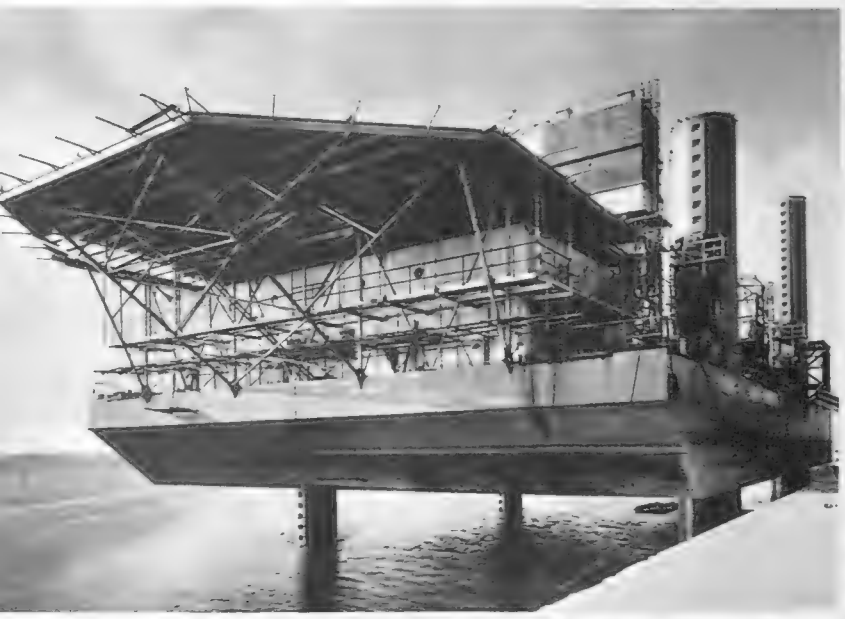
Slot machines are thus growing a good deal more complex as their sphere of operations, geographically and in range of goods and services on offer, expands. They need maintenance (not too often) and filling (if they are doing a profitable job, much more often). Outside the sphere of big operating concerns such as the British Automatic Company, the machines are sometimes owned and run by medium-sized "area operators," though quite a proportion are owned by retail shops or by individuals.

A number of dairies and other food shops are having machines installed in their shop fronts: as yet, on the other hand, Britain has few of the "automatic stores" made up of banks of slot machines on street-corners, that one sometimes sees in the United States or on the Continent. But British manufacturers are already prepared to make machines that sell nylons, hire you an electric razor, or play you a selection of gramophone records and then sell you the one you choose.

MOBILE OIL-DRILLING PLATFORM

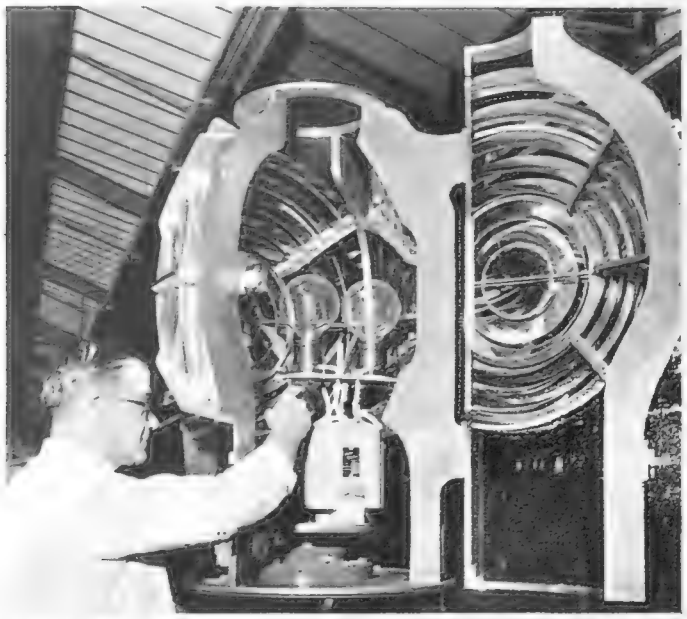
The "Orient Explorer," the first mobile oil-drilling platform to be built in Britain, stands on its retractable legs at Southampton. On the extreme right of the picture, the funnels of the liner *Queen Mary*, are just visible. Designed by the De Long Corporation of America and built at Southampton by Steel Structures Limited, an associate of the John Howard Group of engineering companies, the "Orient Explorer" is fitted with a helicopter landing-stage and has been constructed to withstand a wind force of 100 m.p.h. The platform, which contains 3,000 tons of steel, is completely self-contained, providing air-conditioned living accommodation for fifty-six people. It is 190 ft. long and 106 ft. wide.

When the appropriate drilling site is reached, the four retractable legs are lowered until they reach the sea-bed. A powerful hydraulic mechanism is then engaged, causing the entire platform to rise to a position where it is entirely clear of any lifting action from waves. The legs are 235 ft. long and 10 ft. in diameter. At the end of this month the "Orient Explorer" is being towed, via Suez, a distance of 9,200 miles, to drill for oil into the bed of the South China Sea.



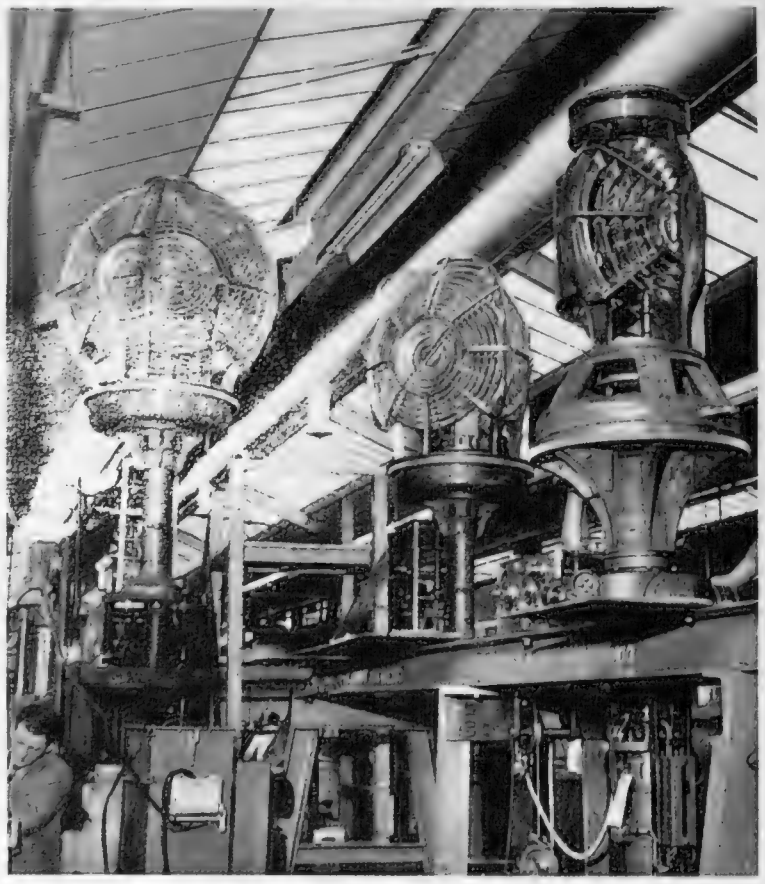
STRANGE CRAFT AT SOUTHAMPTON: Another view of the "Orient Explorer" mobile oil-drilling platform which will be used to drill for oil under the South China Sea. The platform, the first to be built in Britain, cost £1,000,000.

LANTERNS FOR LIGHTHOUSES



At the workshops of Messrs. Stone Chance Ltd., at Crawley, in Sussex, an expert makes the final adjustments to a double flashing four-panel unit of 500,000 candle-power which will replace the present unit in the Eddystone Lighthouse. *On right*—On the extreme right of the picture is a 300,000 candle-power lantern which is to be fitted in the Spurn Lightship. To the left are two lanterns which are to be shipped abroad. Although the production of lighthouse lanterns is one of Britain's lesser-known exports, the firm of Stone Chance is well known throughout the world for its products.

PROPOSED DEEP-WATER TERMINAL



A drawing of the new oil terminal, to be built by the Basrah Petroleum Company at the mouth of the Shat-el-Arab, in the Persian Gulf, shows a huge tanker lying alongside the platform. Shat-el-Arab itself cannot accommodate the larger oil tankers. To link the terminal with a new pump-house at Fao, some 24 miles away, two 32-in. diameter submarine pipelines will be laid. More wells are planned at Rumaila, new degassing stations are to be installed and a pipeline is to be laid from Zubair to Fao. The cost of all this is £25,000,000 and the project is due to be completed early in 1961. Oil exports from Southern Iraq will be increased from 12,000,000 to 22,000,000 tons a year. The contract has been awarded to a group comprising the Raymond Pile Construction Company of Toronto, De Long Ltd. of London, and Richard Costain Ltd. of London. The contractor for the submarine pipelines is Collins Submarine Pipelines Overseas Limited.

PROGRESS IN INDUSTRY AND ENGINEERING—*A Weekly Survey of Achievement in Britain and Overseas*

BRITISH DIESELS FOR THE SUDAN

The artist's impression *on right* is of one of fifteen 1,875 b.h.p. mainline diesel-electric locomotives which are to be supplied to Sudan Railways by English Electric. They are for general service on the Railways' 3-ft.-6-in. gauge tracks, including the haulage of the heavy cotton crop from Khartoum and the interior to Port Sudan. The order is worth approximately £1,500,000, and has been won by the British firm in competition with more than twenty other firms throughout the world. English Electric first supplied diesel-electric shunting locomotives to the Sudan in 1936 and again in 1950; all are still in service. The new locomotives will weigh 99 tons in working order and will have driving cabs at each end. They will be similar in appearance to those recently built for Malaya by Robert Stephenson and Hawthorns, of Darlington (who belong to the English Electric group), and in performance will be comparable to locomotives in course of production by the parent company for East African Railways. Power for the locomotives will be supplied by twelve-cylinder diesel engines, manufactured at the company's works at Preston, where the traction motors and other electrical equipment will also be made. The Vulcan Foundry, another member of the English Electric Group at Newton-le-Willows, in Lancashire, will be responsible for the mechanical parts and for the actual erection of the locomotives.

On left—

RAILBUSES ON WESTERN REGION

The first diesel railbus on the Western Region of British Railways leaves Cirencester Town Station, in Gloucestershire, to inaugurate the new service on the Kemble to Cirencester and Kemble to Tetbury branch lines. With the introduction of the railbuses, services on both lines have been increased. There are also additional "halts" along the two sections for embarking and disembarking passengers. The railbuses (built by AC Cars Limited, of Thames Ditton, Surrey) provide seating accommodation for forty-six passengers. In the background of the picture is the tower of Cirencester's parish church.

ELECTRIFICATION IN ESSEX

The special wiring train of six coaches is being used by the Eastern Region of British Railways for the erection of the overhead contact wire in preparation for electrification. The cable is unwound from drums mounted on wagons and the operators work from the roof of the coaches attached to the train (seen in the picture *on the left*). About one mile of track can be wired in a session lasting five hours. The overhead line equipment is of simple construction and consists essentially of a copper cable which supports by droppers a copper contact wire, the entire construction being supported by the structures erected at the sides of the line. Once the wires have been put in position they have to be very finely adjusted. After this the position of the wires is proved by passing a train fitted with a dummy pantograph which acts as a gauge. When these pictures were taken the wiring train was operating on the London, Tilbury and Southend line. This line is scheduled for electrification in 1961.

The World of Books

RELIGION AND SCIENCE

Arthur Koestler's Views on the Changing Universe; Tributes to Somerset Maugham; Reminiscences of an American Lawyer; Frank Swinnerton's New Novel and Other Fiction

MR. ARTHUR KOESTLER'S new book is on a heroic scale. It might even justifiably be called rather too long. It has been ambitiously planned as a history of man's changing vision of the universe. The main point about THE SLEEPWALKERS (Hutchinson. 25s.) is that, while it may contain no great proportion of original thought, it is provocative of thought, and it also does two things extraordinarily well: it demonstrates the deep division in our days between science and religion, leading the reader back to the origins of this split, and it tells us a great deal, sometimes almost too much, about the lives of Copernicus, Galileo and Kepler.

The last-named is probably the least familiar, but as a man, distinct from his experiments and discoveries, he seems to have been a far more attractive figure than either of the two others. Galileo was an arrogant creature of "cold, sarcastic presumption" with a remarkable gift for making enemies. Copernicus was morose, secretive and niggardly. But Kepler, in spite of being a hypochondriac and a man of no self-assurance, in spite of the world fame that he achieved, was a more endearing character with a fantastic lack of jealousy and a naïve form of eagerness. "Nobody who met the disarming Kepler, in the flesh or by correspondence, could seriously dislike him," and it is significant that the other two men were both correspondents of his. In return, Kepler worshipped Copernicus, finding in him virtues which scarcely existed and, at a time when Galileo was under attack, the only scholarly voice raised in public in his defence was Kepler's.

In his epilogue Mr. Koestler writes that "within the foreseeable future, man will either destroy himself or take off for the stars. It is doubtful whether reasoned argument will play any significant part in the ultimate decision, but if it does, a clearer insight into the evolution of ideas which led to the present predicament may be of some value." This book of his is dedicated to helping the reader, whether of a scientific turn or not, to attain that insight.

THE WORLD OF SOMERSET MAUGHAM (Peter Owen. 21s.) appears close on the eighty-fifth birthday of its distinguished subject and is an anthology of critical essays edited by Dr. Klaus Jonas, who himself contributes a charming piece on *The Gentleman from Cap Ferrat*, besides four more serious chapters on those Maugham writings which have resulted from his travels in the East. Mr. Frank Swinnerton considers him from the specialised viewpoint of another writer, and quotes that most revealing of all Maugham sayings: "On taking thought it seemed to me that I must aim at lucidity, simplicity and euphony. I have put these three qualities in the order of the importance I assigned to them." Among other aspects, Mr. St. John Ervine writes of him as a playwright and Mr. Glenway Wescott has the last word and quite the best essay of the collection, on "Maugham and Posterity."

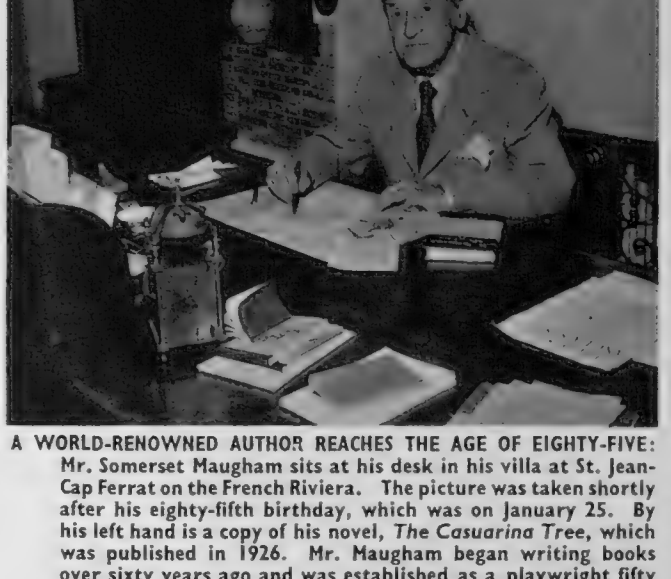
Mr. Robert Traver is a High Court Judge in the United States and the author of a novel, *Anatomy of Murder*. In the course of his legal career he has also been District Attorney in his home region, the Lake Superior District of Michigan, a tough enough place devoted to iron-mining, logging and dairy-farming. Now Mr. Traver has collected some of his reminiscences of the fourteen years during which he coped with the guilty and the innocent.

SMALL TOWN D.A. (Faber. 15s.) may suggest to you an all-too-familiar pattern of slick courtroom pyrotechnics, but it would be a pity if anyone missed reading this human and often very funny book because of a prejudice.

CONE OF SILENCE (Secker and Warburg. 16s.) is Mr. David Beaty's new novel, and it is a beauty. In unemotional, crystal-clear language the author tells the story of a pilot in a commercial line and of a type of jet airliner in which he has had a crash, luckily without loss of life. An official inquiry finds no technical fault in the aircraft and attributes the accident to "pilot error." George Gort, the near middle-aged pilot, had, however, been flying exactly according to the book, is able to prove it and remains on the roster of service pilots. A piece of masterly and very courageous flying in a tropical storm earns him a commendation and, once again, he remains on the active list until a dramatic night which disastrously proves the danger of the gap between "the book" and a pilot's instinct.

This story, in which mechanical and aeronautical questions are dealt with constantly and remain not only within the reader's comprehension, but matters of absorbing interest, is certainly one of the best I have read so far this year. Its tension never falters and its sum of loyalties and jealousies in the airline itself and in the aircraft production company has a really electric impact.

Mr. Frank Swinnerton appears again this week, this time as the author of A TIGRESS IN PROTHERO (Hutchinson. 15s.), a further novel in his series about a small East Anglian town and the family turmoils and dramas which exist behind its primly quiet façades. This is the kind of thing Mr. Swinnerton does not only with easy grace but with an attractive kind of gusto. The conversations through which so much of the plot is developed are lively, natural and altogether credible. Once again, one reflects on the pleasure there is in observing a true craftsman at his work, for Mr. Swinnerton is, in the highest sense of the words, a professional writer, and that qualification, in itself, means the highest of standards.



A WORLD-RENOWNED AUTHOR REACHES THE AGE OF EIGHTY-FIVE: Mr. Somerset Maugham sits at his desk in his villa at St. Jean-Cap Ferrat on the French Riviera. The picture was taken shortly after his eighty-fifth birthday, which was on January 25. By his left hand is a copy of his novel, *The Casuarina Tree*, which was published in 1926. Mr. Maugham began writing books over sixty years ago and was established as a playwright fifty years ago. *The World of Somerset Maugham*, a volume of critical essays, edited by Klaus Jonas, is reviewed on this page.

There is a pleasantly childlike directness about bright jacket of Miss Barbara Goolden's new no A PILGRIM AND HIS PACK (Heinemann. 15 which is no bad introduction to this commendably straig forward story of family solidarity. Briefly, the plot de with a thoroughly attractive, young-ish couple with t schoolboy sons and a schoolgirl daughter, living in gr comfort in their Chelsea house until the husband's reass able pangs of conscience about the ultimate purpose his science research job lead him to resign. A less p dictable step is his conviction that the good life is to found in community farming in East Anglia (this ti possibly Suffolk), and thither they all move, wife intellige and loyal, children severally rebellious or complia The main part of the book deals with the five separ adjustments that they must all make, and Miss Goold very effectively, shows her family as the paradoxi entity that a family really is: mutually irritating perha and definitely, mutually antipathetic on occasion, b if attacked or even questioned, a loving whole. This a novel for people who know about families, and m people do.

FEBRUARY DARK (Constable. 18s.) is anoth of those novels, like Eric Williams' last week, whi are all the better for having a solid groundwo of personal experience. Mrs. Anne von Bertou is Australian. She comes from Sydney and h husband, of Danish extraction, comes from Tasman They have known about the academic life a they have known about pioneering, so that Mrs. v Bertouch's story of a young couple settling the Pacific coast of New South Wales has, sha we say, a certain authority. It also has son memorable descriptions of water, land and trees, whi mark the author not only as a writer with a poe sense, but as an observer second to none. This is beautiful book worth reading, on one level, for its t of courage and, on another, for the exquisite detail its natural life.

Miss Carson McCullers has an American reputati as scintillating and possibly as valuable as a pile diamonds, but is less well known over here. She is considerable writer and, although not everybody enjo reading a play in book form, her new book—which just this—really rewards one. THE SQUARE ROO OF WONDERFUL (Cresset Press. 12s. 6d.) is fun and touching and occasionally exasperating, in th solemn what 's-the-meaning-of-it-all way. It is also work of real originality.

THE BRUTAL YEARS (Weidenfeld and Nico son. 13s. 6d.), an off-putting title if ever I heard on is by Herr Gert Ledig and has been translated fro the German by Oliver Coburn and Ursula Lehrburge It is about Munich immediately after the war, wh this city in a defeated country existed in hunge poverty, ruin and highly-organised corruption. Natu ally enough, intrigue and violence occur as the America occupiers represent possible security and a certa source of money. A depressing book born of mo than depressing circumstances.

ANDES ADVENTURE

Mountaineering in South America

When Everest was climbed in 1953 a French mountaineer praised the achievement by saying that "it had decapitated mountaineering." Eric Shipton, one of the great Everest pioneers, put it just the other way round when he declared "Thank goodness Everest has been climbed; now we can get on with some climbing." Shipton's words have proved true in the widest sense. The youth of many nations have been hard at it, the Everest achievement having led to a spate of enthusiasm to explore other remote mountain regions and reach other virgin summits. In THE PUMA'S CLAW (Hutchinson. 21s.) Simon Clark, who was lured into rock-climbing while at Marlborough, tells the story of one of these post-Everest adventures by a team of young people, all good mountaineers and all bent on climbing "just for the hell of it." Pumasillo, the Puma's Claw, an unclimbed giant of Southern Peru, rising to 20,490 ft., was their objective, and their expedition was called the Cambridge Andean Expedition. Mr. Clark's record is a fine piece of writing, full of wonder at the enchanting valley landscapes, awe of the mountains, of the High Vilcabamba, and of pleasure in the achievement. The last moments of the climb to the summit of the Puma's Claw are breathtaking in their suspense. When at last they came to it "It was all that the Summit of such a noble mountain should be," says Mr. Clark, "a perfect spire of rock tipped with a final barb of gleaming snow, needle sharp, spearing the sky in superb disdain. This was a summit only seen in dreams." As for the victory feast that deserves, and gets, a chapter to itself, starting with bacon omelette and curried sardines, washed down with rum cup, and ending with toasts to The Queen, The President of Peru, Sir John Hunt, Our Parents, Our Helpers, the Puma's Claw and Absent Friends. It was felt wiser during the later toasts, says Mr. Clark, that only the proposer should be on his feet.

Another book in adventurous vein dealing this time with the remote places of the Pacific, is William Travis's BEYOND THE REEFS (Allen and Unwin. 21s.). Travis abandoned his career in the air to go diving for saleable shell among the minute, lonely a lovely islands of the Seychelles Group in the Indi Ocean. Having selected and trained a number Creoles as aqualung divers—by methods as unorthod as they were effective—he sailed with this collection ripe personalities in a tiny schooner into empty sun seas. It is an extraordinary tale he has to tell. T young man can dive in and out of a shoal of kil sharks because he coolly calculates from their movemen that they are not hungry, but he makes a mental note swim lazily as the sharks are swimming, just to ke everything normal. Mr. Travis writes really well, b his photographs may cause just a tinge of disappointmen only here and there do they give a true hint of t splendour and wonder of the Pacific depths which probed with such daring.

John E. Burger's AFRICAN CAMP-FIRE NIGH (Robert Hale. 18s.) is not quite in the usual run bush adventure stories, which concern for the ma part the activities of the well-equipped European American hunter. Mr. Burger takes as his the stories told to him round the camp fire, only some them about hunting, by native trekkers and others w regularly take the trail and know some of the inne most secrets of the Bush. These tales all have authentic ring about them, revealing Mr. Burge intimate knowledge of Africa at its darkest.

Shortly after 2 a.m. on March 22, 1958, in a vall between cloud-enshrouded mountains thirty-five m south-west of Grants, New Mexico, a plane crash and exploded carrying to their deaths Mike To perhaps the best-known figure in the film world of t day, and Art Cohn, his intimate friend and collaborat

MORE JUVENILIA

No family possesses a stronger urge to write books than the descendants of Bulwer Lytton, whose son, the author of *Lucile*, should have written "Civilised man cannot live without books" (instead of cooks). So perhaps I am coming prejudiced to the task of reviewing Mary Lutyens' TO BE YOUNG (Hart-Davis. 21s.). The spate of nursery and schoolroom reminiscences has taken me at the flood and drowned me, and other members of the Lutyens family have given me all I can digest of Theosophy, Leadbeater, Mrs. Besant and Krishnamurti. The book is well written and it is certainly the authoress's own unaided work, and it does not suggest that "to be young was very heaven." To make juvenilia readable, a certain humility is required in the acceptance that the stirrings of consciousness of individuality, sex, and so forth are common to most nurseries and schoolrooms, and that "crushes" on games mistresses and schoolroom love-affairs are rather small and flat beer unless they sparkle with humour as period pieces. Lady Emily Lutyens, as a follower of Mrs. Besant, carried her young daughters across the world in search of the Masters and made them and her architect husband often very unhappy, as the circus moved about. From the nursery to the end of school-days, Mary Lutyens was tragically in love with Krishna's brother, Nitya, who died young. Her love-story is relieved by some useful anecdotes of her father but sheds no further light on "Bishop" Leadbeater. But I found it melancholy reading and much of it redundant, though the book does not lack some lively, interesting, well-written and instructive passages.

John Gore

(*Continued from previous page*)

MISER OF SOULS (Hutchinson. 15s.) is another of Mrs. Margaret Trouncer's sensitive and profound studies of figures in Catholic history, this time the Curé of Ars, Jean-Marie Vianney, who at the beginning of the nineteenth century became a legend during his own lifetime. He has since been canonised, and this biography is a pious tribute to his memory and to his simplicity and humour.

Perdita Robinson is, to many memories, the lovely being in one of Gainsborough's most magical portraits of the young actress who was a protégée of Garrick and Sheridan, but grew to more dubious fame as the mistress of "Florizel," Prince of Wales. In THE GREEN DRAGOON (Alan Redman. 30s.) Mr. Robert D. Bass has given at some length and breadth a more complete history of the lovely lady who was later and for many years the mistress of one Banestre Tarleton, whose biography this principally is. Tarleton had returned to England wounded, from fighting in the American Revolution, with two fingers missing and the sombre nicknames of "Butcher" or "Bloody" Tarleton. He remained a rumbunctious fellow, gaming, quarrelling and striving to keep within a prized social circle; by no means an attractive creature, but never a dull one. And Perdita was a gently independent, mildly talented and always beautiful figure.

Vernon Fane

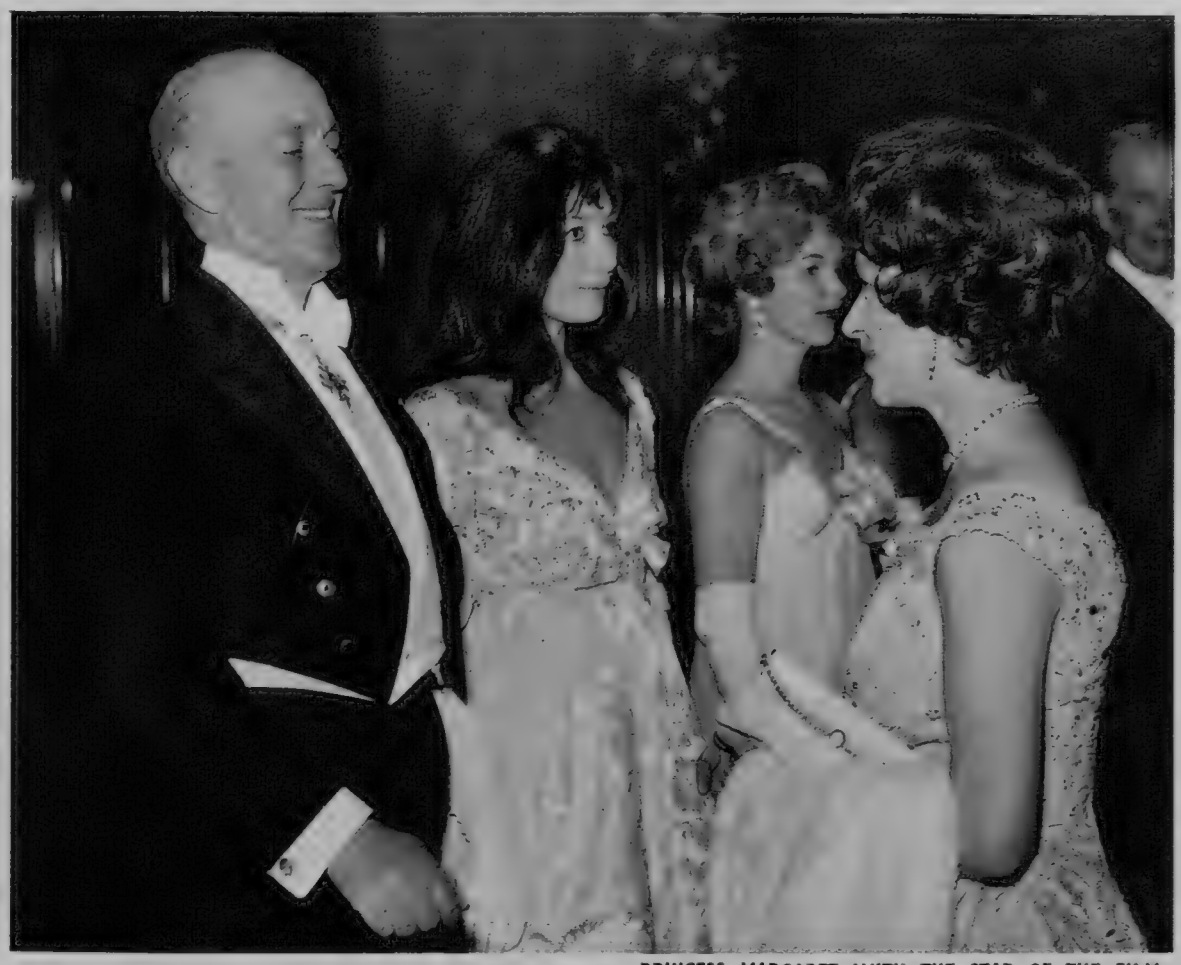
---

a journalist of international distinction. At the time of the crash Cohn was writing Todd's life; indeed, it was almost finished, and it has been left to Marta Cohn to finish off the task from the copious notes her husband left behind. The book is called THE NINE LIVES OF MIKE TODD (Hutchinson. 21s.), and an extraordinary tale it is, of a character who seemed in spirit to belong to the Renaissance and duly electrified the twentieth century. By the age of seven Todd was doing business on his own account, at eighteen he was president of a 2,000,000-dollar-a-year construction company, at nineteen he was almost a dollar millionaire, and at twenty he was flat broke and living on a dole of a dollar a day. So the story goes on, contradictory at every turn, until that rendezvous with death in New Mexico with Todd at the height of his career in the film world and only at the start of his much publicised and romantic marriage to Elizabeth Taylor. Todd emerges as a brave and dashing figure, his rarest qualities being perhaps that he never in adversity lost his resilience, his urchin's sense of fun, and his genuine affection for the human race.

When the S.S. *Fort Stikine* blew up in Bombay docks in April 1944 she set in train one of the greatest explosions in history. Such was the nature of her cargo that she devastated 300 acres of Bombay and reduced twelve other ships to scrap-iron. The disaster was never allowed to become news, but John Ennis has rescued it from oblivion with a detailed and most exciting account of this holocaust that must have been a body-blow to our war effort in the East at that period. He calls his book BOMBAY EXPLOSION (Cassell. 16s.) It is based on detailed interviews with eye-witnesses to the drama.

THE NEW OFFICIAL AUSTRIAN SKI SYSTEM (Nicholas Kaye. 35s.) has been edited by the Austrian Association of Professional Ski Teachers, and sets out this radically new method, both from the aspects of teaching and learning. Once the well-organised ski school based its teaching on a thorough grounding in stemmed turns. This elaborate book shows in text and by photographs and diagrams, the new approach, making it readily understood.

R. C. E.



PRINCESS MARGARET WITH THE STAR OF THE FILM: In the foyer of the Empire Cinema in London, she talks with Alec Guinness, who plays Gulley Jimson in *The Horse's Mouth*, the film shown at the Royal Performance last week. Next to him are Juliette Greco and, beyond her, Peggy Cummins. The film has been widely acclaimed as a great triumph for Mr. Guinness, who himself made the screen adaptation from Joyce Cary's novel. Gulley Jimson is faithfully portrayed as the poverty-stricken, sponging, completely amoral character who justifies every piece of his outrageous conduct by his right to be an artist. Kay Walsh is the barmaid friend, Coker, and the direction is by Ronald Neame. The film is being publicly shown at the Gaumont Theatre.

ROYAL FILM PERFORMANCE

On left—

TERRY-THOMAS IS PRESENTED TO THE QUEEN MOTHER: On his right is Richard Todd. Some of those who were presented to the Royal guests of honour took part in a stage interlude during the evening.

BEFORE THE PERFORMANCE: Princess Margaret has a word with Maurice Chevalier, who later sang on the stage. Also in the line of theatre and screen personalities are, from the left, Diane Cilento, Ian Carmichael, Max Bygraves and Lauren Bacall. The Royal Performance was in aid of the Cinematograph Trade Benevolent Fund.

CUTTING THE ICE: Members of the party watch a mechanical saw being used to cut small blocks of ice out of the Svartis Glacier, in Northern Norway. After the blocks had been taken to the small town of Mo, in Nordland, they were frozen into one huge slab and packed in glass-wool. It was claimed that when wrapped in this, the block would not melt while being transported to the Equator.

ON THE GLACIER: The mechanical saw is used to cut the blocks of ice. The Svartis or Black Glacier is situated inside the Arctic Circle. Glass-wool industries in Europe have planned to take the ice from the Arctic to French Equatorial Africa to prove the insulating properties of the fibre.

LOADING A BLOCK OF ICE: After it has been cut out of the glacier, the block is loaded on to a sledge to be taken by helicopter and lorry to the small town of Mo. It then started its journey by a truck through Europe.

ARCTIC ICE FOR THE EQUATOR

Blocks Cut in the Arctic Circle are Taken by Road to French Equatorial Africa

On its way from the Arctic Circle to French Equatorial Africa is a huge truck carrying a block of ice weighing 3 tons. Insulating the ice against melting is carefully packed glass-wool. The project is designed as a demonstration by the glass-wool industries in Denmark, France, Germany, Norway and Sweden of the insulating properties of the material. The scheme started when a glass-wool expert speaking on a European radio programme claimed that a properly insulated block of ice could be taken from the Arctic Circle to the Equator without melting.

The sponsors of the programme promised to pay a reward for ice successfully transported on this journey and the challenge was accepted by the glass-wool industries. Small blocks of ice were cut from the Svartis Glacier, situated in the northern part of Norway inside the Arctic Circle. These were flown by helicopter to the nearest road and then taken to the small town of Mo. There the small blocks were frozen together to form one huge slab weighing 3 tons. It was carefully packed in the insulating material and loaded on to a truck. It was expected that the journey would take about twenty days. The ice should arrive in Libreville, the capital and seaport of Gabon in French Equatorial Africa, by the end of February or the beginning of March.

Observers accompanying the truck were to measure the amount of water dripping off the block. Some experts in the glass-fibre industry claimed that the ice would not melt at all. The truck is also carrying a load of medicines destined for Dr. Albert Schweitzer's hospital at Lambarene. The medicines were presented to the hospital by the various organisations who are taking part in the unusual experiment.

ON THE WAY TO MO: A helicopter lifts one block of ice as another is pulled over the snow on a sledge. *Right*—The helicopter flies off towards the nearest road. The ice was then taken by lorry to Mo.

REMOTE CONTROLLED doors shut off the "fierce heat" of a modern open-hearth steel furnace. It's really a model (full size) and forms the central part of the new Science Museum gallery designed by Willy Rotter, F.S.I.A., one of Britain's most celebrated industrial artists.

Britain's Steel men show how it's done

Lord Mills opens new Science Museum display of Britain's up-to-the-minute ways of making steel

Now on show at the Science Museum, London, is a striking new gallery opened last Friday by Minister of Power Lord Mills. In co-operation with the Science Museum, the Steel Industry is presenting the most up-to-date display about iron and steel in the world – with the emphasis on the modern methods used today by Britain's steel makers.

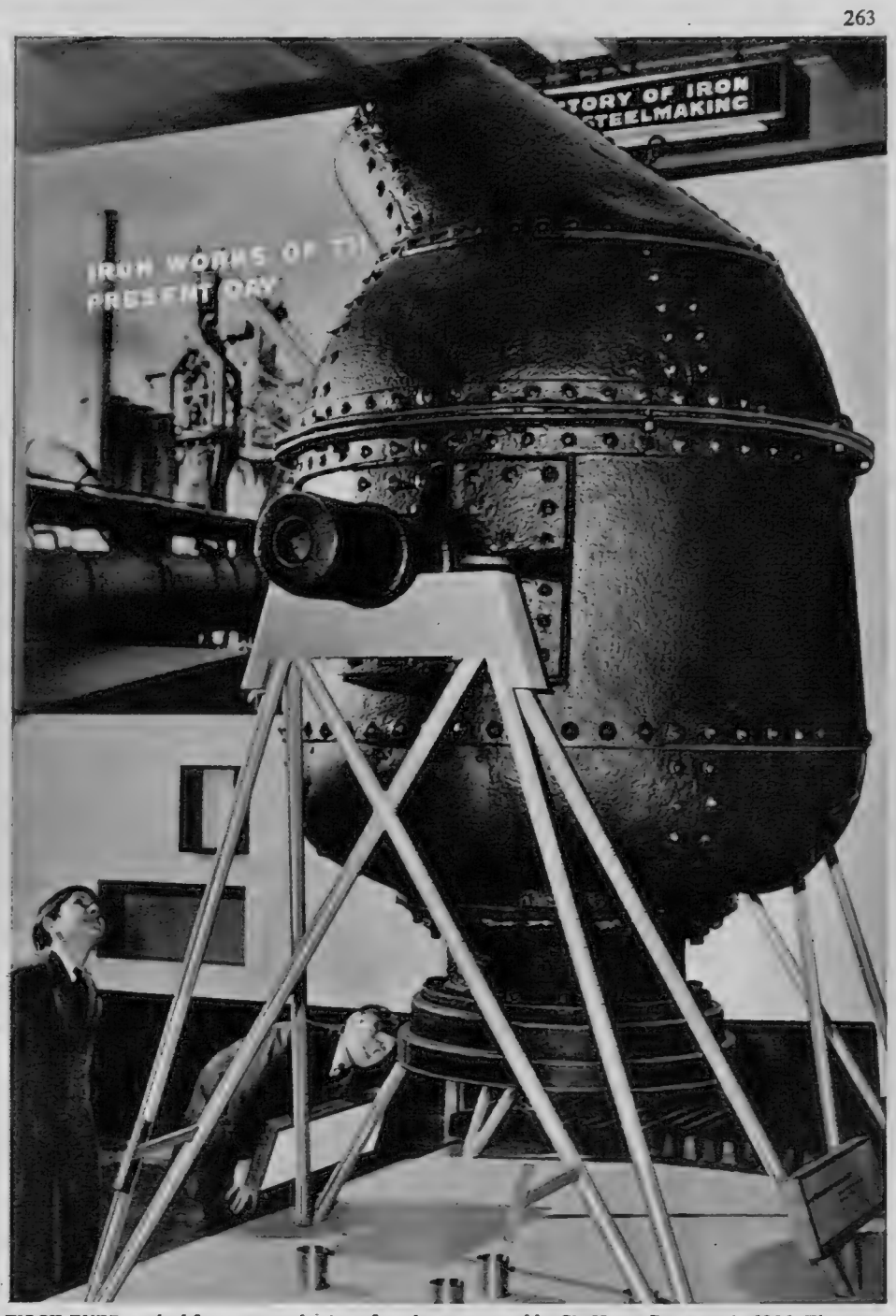
Melting steel without flame

Here you can see the whole fascinating process, from the iron ore dug from the ground, to the finished tough, resilient steel.

You can see one of Bessemer's original "converters" which transformed steel from a rarity into a plentiful everyday material – and how a modern integrated steelworks is run. You can see a piece of steel actually melted before your eyes by induction heating—without any flame. You can see the ingenious scientific methods by which steel is tested and improved.

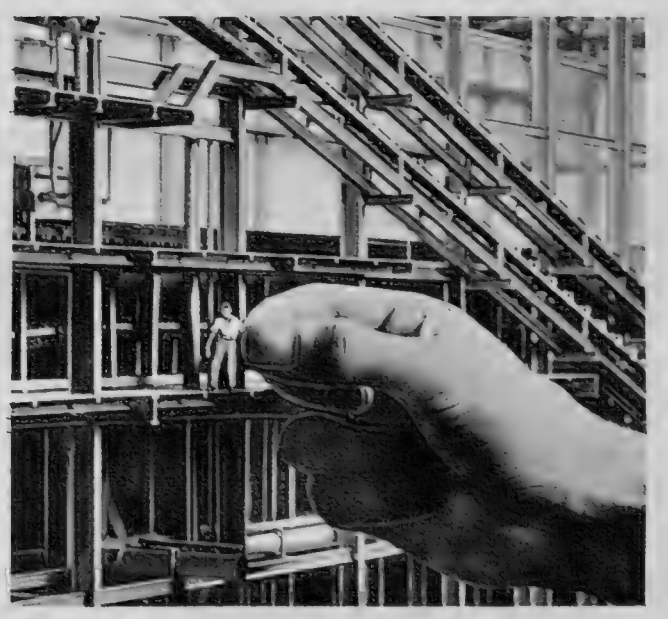
The story of steel is one in which British inventors and British pioneers have led the world. Britain has played the leading role in giving the world this metal, on which civilisation depends.

The British Iron and Steel Federation.



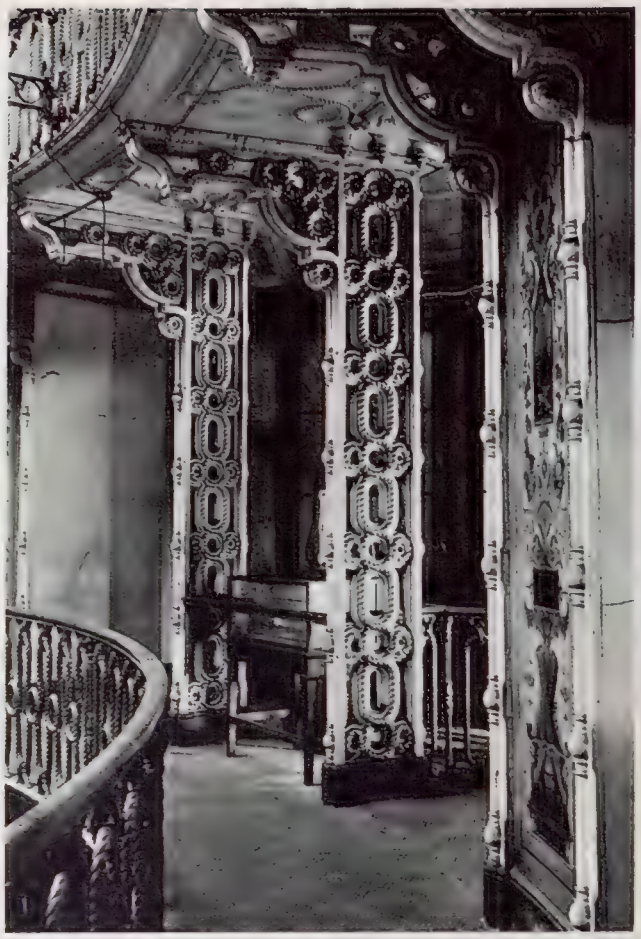
FIRST-EVER method for mass production of steel was patented by Sir Henry Bessemer in 1856. This is one of his original "converters". Since then Britain has been in the forefront in the modern manufacture of steel.

ELECTRIC ARC FURNACE model shows how some special steels are made. Behind it, there is an apparatus in which you can watch steel being melted without flame, by high frequency current.



WORKING MODEL of a modern "sinter" plant—used to process iron ores—is another of the marvellously detailed models. All have full explanations.

A MONUMENT TO PRIVATE ENTERPRISE : The Coal Exchange is in Lower Thames Street. Business was transacted here until nationalisation of the mines.



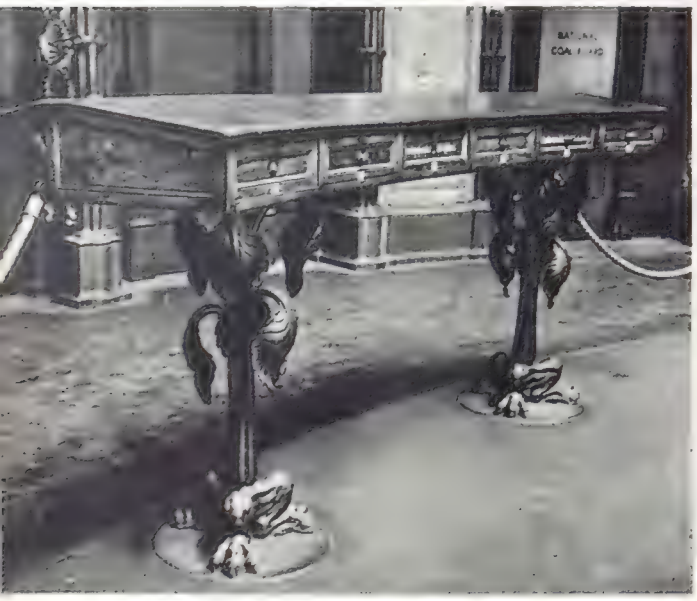
A VICTORIAN INTERIOR : *Left*—The cast-iron supports of the balcony are of a rope design. There are several hand-painted tiles on the walls. *Right*—Tile paintings are also on the ground-floor walls. The Coal Exchange was opened in 1849. The building may now have to be demolished as part of a City of London street-widening plan.

LONDON'S COAL EXCHANGE

A Victorian Building in the City with an Uncertain Future

Coal was first brought to London from the North Country in the thirteenth century. The factors did business with the captains of the colliers in the open air or in taverns, and for several centuries there was a duty on coal payable to the City Corporation. The rebuilding of St. Paul's Cathedral after the Great Fire was partly financed from these duties.

Records show that a Coal Exchange had been built by the 1750's. It was managed by an exclusive body, the Coal Factors' Society, which appears to have been somewhat monopolistic in character. Fifty years later the Corporation obtained compulsory powers to purchase the Exchange and opened it to all who desired to attend. In the middle of the nineteenth century the building had become inadequate. A new Exchange was designed by James Bunstone Bunning, an architect responsible for several City buildings, and erected at the corner of Lower Thames Street and St. Mary-at-Hill. The Prince Consort, accompanied by the Prince of Wales (later Edward VII), performed the opening ceremony. There was no election to membership or subscription to the Exchange and business was carried on by verbal agreement in the tradition started by the first London coal factors. After the last war the nationalisation of the mines brought the activities of the Exchange virtually to an end. Now the future of the building is in doubt. There is talk of pulling it down to allow widening of streets. Such a proposal may be opposed by those anxious to retain an interesting example of Victorian architecture in the City.

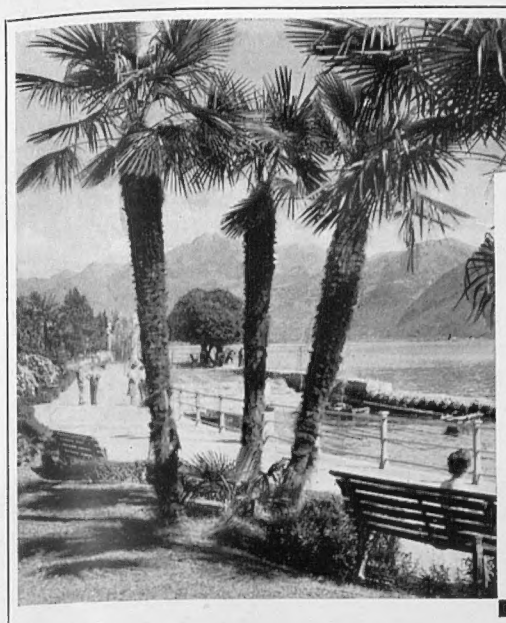


A MERCHANT'S DESK : It is made of oak with cast-iron supports. The drawers are numbered. In right background is the door of the office maintained by the National Coal Board.

TIERS OF BALCONIES : They run round the room, which has a remarkable floor in the form of a mariner's compass with the City shield and an anchor represented in the middle. Business was conducted at the Exchange on three days a week. Agreements between the various buyers and sellers were made verbally.

This page is missing from the print copy used for digitization.
A replacement will be provided as soon as it becomes available.

This page is missing from the print copy used for digitization.
A replacement will be provided as soon as it becomes available.



TESSIN

Southern Switzerland

For a happy vacation the Tessin offers the realisation of all your dreams : mountains close to the shore of Mediterranean-coloured lakes, palms, cypresses and all fantastic riches of Riviera flora.

LUGANO ON LAKE LUGANO

Mild, sunny climate for ideal vacations. Beautiful lake and mountain scenery. Splendour of sub-tropical flora (mimosas, glycines, camellias, magnolias). Centre for excursions on the lake, mountains and valleys, to St. Moritz, Milan, Venice, etc.

Cosy hotels and pensions of all categories (8,000 beds). Elegant shops. Golf, tennis, yachting, bathing beaches, Kursaal, Gambling Casino Campione, night-clubs.

LOCARNO ON THE BEAUTIFUL SHORES OF LAKE MAGGIORE

Here you can really enjoy spring holidays : the climate is wonderfully sunny and mild. Palms, camellias, azaleas, and the everlasting beauty of an enchanted land. Excellent choice of accommodation, sports, entertainments and excursions.

ASCONA IDEAL SOJOURN FOR ALL YEAR SEASONS

Magnificent public beach with Lido, Golf (18 holes open all year), Garden-Golf, Tennis, Airfield with Aviation School, Yachting School and all water sports. Comfortable hotels and pensions of all categories.

For information apply to Swiss Federal Railways, Trafalgar Square, Strand, or direct to official Information Offices, Lugano, Locarno or Ascona.

Germany

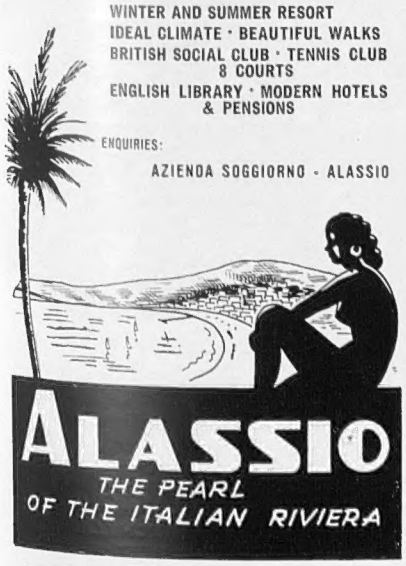
for your holidays

Germany has much to offer, such as the Baltic and North Sea resorts with their fine sands —a cruise on the Rhine or a lake steamer—the tonic air of the Black Forest—majestic Alpine scenery—medieval towns and villages—excellent motor roads and the Autobahn—its railway network—sports—music festivals—traditional folklore events—comfortable hotels and inns with national dishes and wines.

For information and brochures contact your Travel Agent or :

GERMAN TOURIST INFORMATION BUREAU
6, Vigo Street, Regent Street, London, W.1. REG 2600

THE **LEISURELY TOURS**
With superb hotels—first class couriers—and longer stays at places . . .
FASCINATING PROGRAMME OF MOTORING TOURS
Mountain Hotels and Alpine Flowers
Moorish Spain and South Portugal
Scandinavia: Fjords and Capitals
An Ideal Fortnight in Portugal
Portugal and North Spain
Sicily and South Italy
Italy, the Perfect Way
Vienna and Dolomites
Finland and Russia
Greece & Turkey
Lovely Austria
Morocco
(From 71 gns.) Ask for Brochure 'S'
LAMMIN TOURS LTD
67, Blenheim Terrace, London, N.W.8
°(ABTA) — Tel.: MAI 4321 (or Agents)



with **MOTORWAYS**

. . . a holiday to delight you for ever . . . a holiday of leisured luxury with MOTORWAYS the pioneers of Continental pullman tours.
Tours to all parts of Western Europe, Gibraltar, Morocco, Hungary, Czechoslovakia, Yugoslavia —and Poland and the Soviet Union.

MOTORWAYS LUXURY MOTOR PULLMANS
14-32 days 75-210 gns.

EUROPEAN MOTORWAYS FIRST CLASS MOTOR COACHES
15-25 days 72-129 gns.

Write for 1959 brochures NOW to

MOTORWAYS

Dept. W, 85, Knightsbridge, London, S.W.1
Tel: SLOane 0422, 0737 or Agents

The Connoisseurs' Silver Jubilee Cruise

29th September to 17th October, 1959

Venice to Venice
visiting
Jugoslavia
Greece and its Isles
Turkey

from 90 guineas upwards

U.K. GENERAL SALES AGENT :
POLYTRAVEL LTD. LONDON. Branches & Agents.

Ask your travel agent or

OCEANWAYS S.S. AGENCY LIMITED
23 Haymarket, Piccadilly Circus
London, S.W.1

Holidays in

YUGOSLAVIA

A wide variety of holidays along the well-known Dalmatian coast (Dubrovnik, Opatija, etc.) and at inland resorts (Lake Bled, etc.).

Inclusive holidays by chartered aircraft or special train from Great Britain.

New boat connection from Venice along the Dalmatian coast starting 29th April.

Please note that normally, at most coastal resorts, even in late **APRIL** and in **MAY** superb sunshine, warm bathing and considerably **CHEAPER HOTEL RATES** can be enjoyed.

Full information from your Travel Agent or from :
YUGOSLAV NATIONAL TOURIST OFFICE
(Dept. S) 143 Regent St., London, W.1. REG 5243

CONDITIONS OF SALE AND SUPPLY.—This periodical is sold subject to the following conditions, namely, that it shall not, without the written consent of the publisher first given, be lent, resold, hired out or otherwise disposed of by way of Trade except at the full retail price of 2s. 6d., and that it shall not be lent, resold, hired out or otherwise disposed of in a mutilated condition or in any unauthorised cover by way of Trade, or affixed to or as part of any publication or advertising, literary or pictorial matter whatsoever.

HOTEL SCHWARZER BOCK

WIESBADEN, GERMANY

Proprietor: Family Schaefer.

Charming hotel established in 1486 with 320 beds and 200 baths.

Thermal Bath House. Japanese Swimming-Pool.

Roofgarden—Grill—Bar and Garages.

'Phone: 58 21 Teletype: 416/640

Please send for folder "E"

NICE AND PARIS BY Caravelle

ROLLS-ROYCE JET

This summer for the first time you can fly from London on the silent 500 m.p.h.

Caravelle

—the quietest airliner in the world—to Paris in less than an hour and to the Riviera in under two hours.

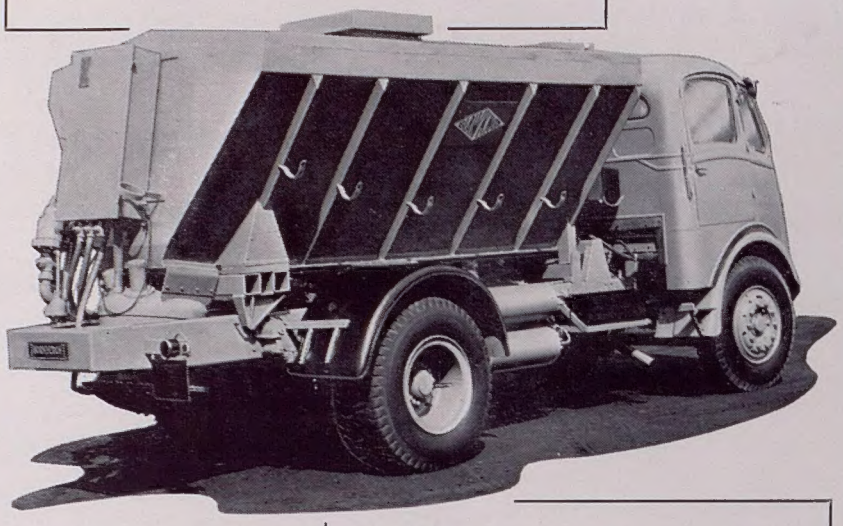
Ask your travel agent—he has flown in it. Starting mid-June—booking now.

AIR FRANCE

THE WORLD'S LARGEST AIRLINE

THORNYCROFT

VEHICLES for World Transport



INDIA

One of a fleet of 8½ ton bulk cement containers built on Thornycroft "Trusty" chassis to the order of Larsen & Toubro Ltd., Bombay, for delivery to the Nagarjunasagar Dam Authority. The Blaw-Knox container incorporates a blowing unit giving a discharge of 20 tons per hour of cement at 75 ft. lift.

Write for descriptive literature and technical data sheets.

TRANSPORT EQUIPMENT (THORNYCROFT) LIMITED

THORNYCROFT HOUSE - SMITH SQUARE - LONDON - S.W.1

BRITISH WATERWAYS

HEART OF ENGLAND CRUISES

5 day luxury cruises by m.v. Water Rambler through lovely countryside

Visits to Stratford-on-Avon, Warwick, Sulgrave Manor and other famous places

Accommodation at first-class hotels

Weekly departures from Oxford or Birmingham from 4 May to 28 September

Ask for a brochure at Cooks or other leading travel agencies, or at British Railways London tourist offices and termini

Plans are being made to operate a larger boat, with sleeping accommodation, on cruises in Nottinghamshire and Lincolnshire during 1959.

Further information from

BRITISH WATERWAYS, 163 EUSTON ROAD, LONDON NW1

BRITISH WATERWAYS TRANSPORT

WITH YUGOTOURS

the Specialists for Yugoslavia

FROM £22 FOR 7 DAYS

8, 15 and 22 day tours by air—deps. every Sunday, 7, 10, 14, 17 and 21 days by rail—deps. every Sat. and Sun.

NEW THIS YEAR — SPECIAL AIR CONNECTIONS BETWEEN LONDON, ZAGREB AND DUBROVNIK

Apply for free illustrated booklet to your local travel agent or:

ANGLO-YUGOSLAV TRAVEL SERVICE

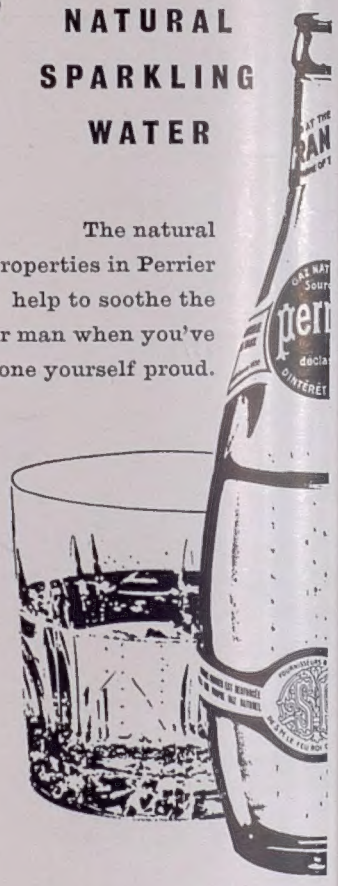
(Dept. S.P.2), 149 Regent St., London, W.1.

Telephone: REGent 7101

Perrier

NATURAL SPARKLING WATER

The natural properties in Perrier help to soothe the inner man when you've done yourself proud.



Perrier makes you sparkle

ONLY **CIT** CAN OFFER YOU...

82 DIFFERENT LOW-COST HOLIDAYS IN **ITALY**

CIT offers you the most enjoyable and economical holidays available in Italy—82 wonderful hand-picked holidays of every type. There are tours to all the famous cities, holidays at the finest Italian resorts and even cruises of the Adriatic. If you're looking for the best holiday value ever, write now for CIT's bright new 1959 brochure. It's Free.

TYPICAL CIT 15-DAY TOURS	All inclusive cost	By Rail/Sea	By Air
Riccione	... From	£28 18	£43 4
Viareggio	... From	£32 0	£45 0
Discovery Tour		£54 0	£70 0
and 79 others			

POST THIS COUPON TODAY!

CIT (England) Ltd., 10 Charles II St., London, SW1

Please send me FREE and without obligation, your 1959 illustrated brochure/guide.

NAME .....

(Capitals please)

ADDRESS .....

..... S.14.2.59

Michael Joseph Ltd. will be pleased to send their catalogue of new and forthcoming books to readers of "The Sphere" Please write to 26 Bloomsbury Street, London, W.C.1

BREED

SILVER CLOUD CHINCHILLAS

For Pleasure and Profit

Send 2/6 for Real Photographs, Booklet "All About Chinchillas," Address of nearest Agent and Special Offer to:—

SILVER CLOUD CHINCHILLAS LTD. (Dept. C), KENDAL, WESTMORLAND

Published Weekly by ILLUSTRATED NEWSPAPERS. LTD., Ingram House, 195–198, Strand, London, W.C.2, and Printed in England by THE ILLUSTRATED LONDON NEWS AND SKETCH, LTD., Milford Lane, London, W.C.2. SATURDAY, FEBRUARY 14, 1959. Entered as Second-Class Matter at the New York (N.Y.) Post Office, 1903.

"Cruising-the one holiday that has everything"

says Sir Alan (A.P.) Herbert

A P & O holiday . . . a floating hotel . . . everything under the sun.

WHEN winter's here a wise man's (or woman's) fancy keenly turns to thoughts of cruising. For this is the way to cleanse the soul of winter . . . to bathe the mind and body in warmth and rest . . . to treat oneself to the soaring tonic of a holiday with P & O.

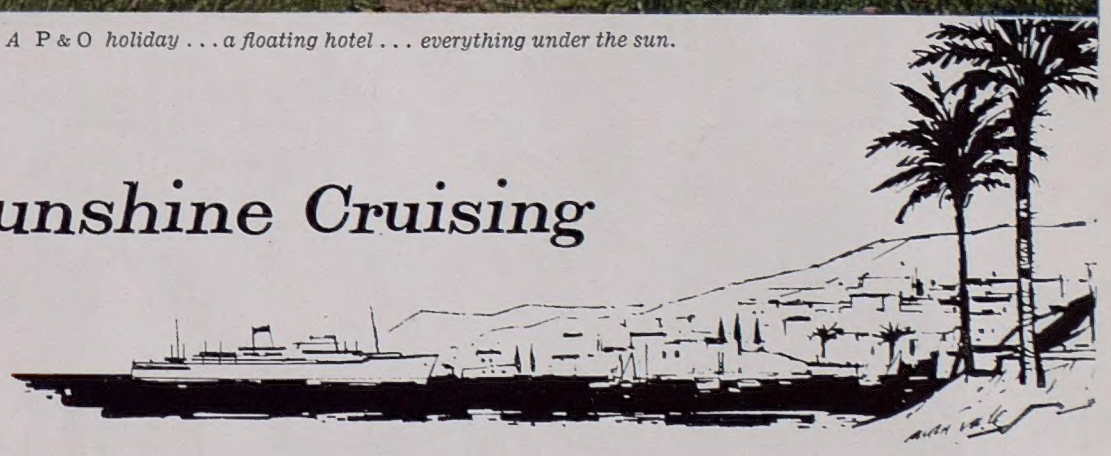
A fleet of beautiful ships awaits to carry you over the sea to such faraway and festive places as Bermuda and Cuba, the Canary Islands or Casablanca; to Naples, Venice, Cannes and other sunlit cities by the sparkling waters of the Adriatic and the Mediterranean.

Here you can enjoy fun without fuss, travel without travail, rest without worry, superb food and service, sunshine and sea air. In the words of Sir Alan Herbert: "Here, indeed, is the one holiday that has everything."

This year make sure of the sun. Sir Alan's delightful booklet 'All about Cruising', together with the 1959 Cruise Programme, is now available on request. Ask your Travel Agent. Or write to P & O 14/16 Cockspur Street, London, S.W.1. Tel: WHItehall 4444, or 122 Leadenhall Street, London, E.C.3. Tel: AVEnue 8000.

P&O

Sunshine Cruising



Fun without fuss . . .

travel without travail . . .

rest without worry . . .

sunshine and sea air.

Blending the past with the present . . .
creating the
smooth future Scotch—today!

Long John SCOTCH

THE PROPRIETARY SCOTCH WHISKY OF WORLD-WIDE REPUTATION

DISTILLED, MATURED, BLENDED AND BOTTLED IN SCOTLAND